



Courts and Tribunals Judiciary

The 24th Competition Law Association Burrell Lecture: Is a focus on data the way to improve access to justice in a multifaceted world?

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1. Good evening and thank you very much for inviting me.
2. This address is about the nuts and bolts of the legal system. It arises as a result of the setting up of the Online Procedure Rules Committee (OPRC) under the Judicial Review and Courts Act 2022. This new OPRC provides an opportunity to look at our system in a new way. I believe the project has the capacity to transform access to justice in England and Wales. My purpose is to explain some of the initial thinking of this subject and to contribute to the debate. I hope to persuade you that a focus on data may provide a new approach to improving access to justice.

Nuts and bolts

3. As I said, this is about the nuts and bolts of the legal system. It therefore makes sense to start with an individual you may all have heard of, but you might have forgotten. His name is Joseph Whitworth. He was born in 1803 in Cheshire and he died a world famous Baronet, with amongst other things an art gallery named after him – the Whitworth in Manchester - and a scholarship programme founded in 1868 which still exists to this day.
4. Now he was an engineer and did some amazing things. His first proper job after his apprenticeship was to work for Henry Maudsley, another famous engineer and one of the founders of the industrial revolution. Maudsley's great invention was the screw cutting lathe. It had a system which moved the cutting tool accurately lengthways as the lathe turned, to cut an accurate screw thread. Joseph Whitworth's skills as a mechanic were developed working with Maudsley, and Whitworth later went on to contribute to the manufacture one of the world's first programmable computers – Charles Babbage's Difference Engine. But it is not his work on computers which is important tonight, nor his mechanical engineering genius, significant though both were. I want to focus on something else – a conceptual leap which Whitworth took, which is or should be the most important reason he is remembered today. He created what is credited as being the world's first technology standard. Now there had been standardised weights and measures long before – going back to the ancient world, but this was different.

5. A screw thread is quite a complex thing to make. If you think of a nut and a bolt, the two different objects need to have threads which will work with each other without jamming. They need the same angle and depth and the same spiral pitch. This requires considerable precision.
6. Now the use of a screw thread goes back to ancient world too. In his *Historiae Naturalis* in AD 66 Pliny credits Hero of Alexandria with making first screw driven press, – such as for pressing grapes and olives. But as far as we know, for all of history up to Mr Whitworth, the two threads needed to make a system like Hero's block press or any other arrangement of a nut and a bolt, were made ad hoc. It was like bespoke suit making. Each nut and bolt formed a unique matching pair.
7. Of course this meant that if you were doing maintenance on a machine and you dismantled it, you needed to keep track of every nut to make sure you kept it with the right bolt, and so on. Each manufacturer would have repeated the process for their own creations, and in fact Maudsley did have a set of standardised taps and dies used in the things his own company made. In effect they were his own in-house standards.
8. But, in 1841 his pupil Joseph Whitworth went one better. And created, set out, and critically published a standardised thread design specification. It went through the British Empire and in the USA (at the start). Initially its spread coincided with the expansion of the railways. Later it became what was known as Whitworth British Standard. The standard itself specifies a 55° angle for each peak and valley – and then the top 1/6th of the pointy tips and valley bottoms are rounded off in a circle.
9. The critical point is that with the standard in place, nuts and bolts could be made by different people and yet would still interoperate. This allowed for huge efficiency. It proved itself in 1855 when Whitworth's standard system was used in the quick mass production of engines to produce 120 gun boats for the Crimean War in 90 days, to the astonishment of the rest of the world at the time.
10. It is this interoperability of technology which is so vital. As one might put it today, a technology standard is pro-competitive in the downstream market for things to make with nuts and bolts.

The internet

11. Now, let's jump forwards from one industrial revolution to the technological revolution of the 1960s/70s and look at the origins of the internet.
12. At that time there were various computer networks. They were however proprietary, or privately designed, network systems. IBM for example had a star based system called SAGE. It worked using a central node sitting in the middle of the network, with connections to all the other computers in the network. Each company's network was a bit like a bespoke nut and bolt combination in the world pre-Whitworth.
13. Like many bespoke systems, such networks could be tailor made for the task in hand, and where previously there had been no network at all they were often a dramatic improvement.
14. However, the networks did not connect and this limited them. The US Government also noticed that a defence network built like this might not survive attack. To strengthen it, the network needed to become centreless and allow individual local networks to connect to each other – an inter-network network – or internet.

15. To make this internet work there needed to be agreement on a protocol – a standard – whereby different computers connected together knew how to exchange information. They could send packets of data to any other destination in the network by any path. The protocol was called TCP/IP (Transmission Control Protocol/Internet Protocol). This “suite” of protocols defines how data within the network is turned into packets, transmitted, routed, and received. It is how the computer back bone of the internet still works today.
16. One more feature of TCP/IP is worth mentioning at this stage. It is a practical application of the idea of thinking in terms of a stack of technology. A stack here, some will be familiar I know, is a conceptual tower of abstract layers. People using a technology need only look from the top and appreciate the beauty of the top layer, people building with technology need to look from the side and see how each layer rests on the next one.
17. In this example at the bottom there is a physical layer in which the electronic signals pass between one place and another. In one place there may be a copper wire, in another place the signals may travel through the air by radio. Conceptually they are all different instances of the same physical layer which sits at the bottom of the stack of layers.
18. Next, in the middle of the stack, you can think of a ‘link layer’ connecting the various network computers together. This depends on the signalling between the machines and the routing and transmission of data. At the top, there is a user interface and application software. The bit where the human user and machine meet.
19. The point of the layer idea is that each successive layer can simply take the lower layers for granted. You can design the scheme for transmitting link layer data without worrying about the details of the physical layer. So, you do not have to worry about the differences between wire and air.
20. Most importantly when at the top of the layer stack you reach the application layer. This is where the application program which a user is actually interested in is operating. It could be an email program like Outlook or a web browser like Firefox or a music streaming program like Spotify. The application designer can build an application for the user – which will communicate with another application somewhere else – without having to worry about how the data will get there and back. The application designer can take the lower layers for granted and treat them like a platform on which to build.
21. In effect the layer scheme means that each lower layer is making a promise to the higher layer that the higher layer does not have to worry about the work the lower layer has to do. All you have to do to design a new application is build the application. You can do so knowing that the transmission of data from you application to another one elsewhere will happen seamlessly without you having to worry about how networks talk to one another and whether the data will travel as electricity in a wire or as laser light in a glass fibre cable or as radio signals in the air.
22. In fact, there are usually many more layers than three. The main model used as the standard is called the OSI 7 layer model. OSI stands for Open Systems Interconnection and the model is promulgated by the ISO (International Standards Organisation).
23. Whitworth’s technology standard echoes an idea similar to these layers too. By standardising the nuts and bolts “layer” in the design of machinery – Whitworth saved engineers the bother of designing their own nuts and bolts. They could concentrate on what they could build using the standardised

nuts and bolts. In other words, a standard allows people building new things to take some of the more fundamental building blocks of the platform beneath for granted.

24. Those of you who had mechano sets - other construction toys offer the same point - will know that what you create is not determined by the components. Simply by arranging and re-arranging the same nuts and bolts your creative options are many. What you create is up to you!

Laws, layers and standards

25. So what Thomas Whitworth and the internet both show us is that it is possible to have a profound impact without being the builder of a machine. What you need to do is make a standard – in other words a rule (or, if you will, a law). Now that is something which lawyers should be good at. And that kind of rule or law making doesn't cost the earth. If you can get the standards right – other people – who were building machines anyway – will adopt the standard and produce a better result.

Mobile telecommunications

26. Now there is one more jump in the history of technology. That is to the recent three or four decades and to mobile telephones. It is a similar story. In the beginning (1970s/early 80s) the first-generation cellular mobiles were analog, based on a variety of different incompatible technologies. The GSM system was born in the 1980s by governments and tech companies collaborating to create a “2G” digital cellular standard (all based by the way on the OSI layer stack model). With the 2G standard and its successors, the world changed.

Access to justice

27. Now hold these thoughts of standards and layers while I turn to access to justice.
28. The law of England and Wales, and the court and tribunals in this jurisdiction, are very successful commercially. London is a leading centre for international dispute resolution. And while I am at it, as a former judge of the Patents Court I ought to acknowledge that mobile telephone standardisation and the question of technology licensing on Fair Reasonable and Non-Discriminatory or FRAND terms, is one recent example.
29. But this address is not about that aspect of our jurisdiction. Some people have always been able to afford the human effort and challenge of getting bespoke legal advice and assistance. I am concerned about the access to justice of those with limited means.
30. This represents the vast bulk of the work of our courts and tribunals in England and Wales and address the concerns of so many real lives of almost everyone. This work also represents the work of the lawyers funded by legal aid, work under CFAs or relying on QOCS; the work of third sector providers of advice and assistance like Advice Now, the Citizen's Advice Bureau, and Support Through Court; law centres, including some linked to universities; ombudsmen like the Housing Ombudsman; pre-action portals like the Official Injury Portal (aka the “whiplash” portal); mediation organisations like the Civil Mediation Council; ACAS, which provides conciliation services in the employment sphere; and a number of private providers of online dispute resolution portals.
31. I mention this list to make the point that there is a plethora of groups and organisations all with a role to play in access to justice. They are all part of the justice system, and we should see them as such. Moreover, the part of the justice system which they occupy is the pre-court part. Their role is not

limited to that, and the work and relevance of many of these actors will apply while court or tribunal proceedings are underway, but they do have a common property that their involvement with individuals generally starts before any court action and may come to an end without any court or tribunal ever being involved.

32. Here is where an important legal innovation comes into play. And it is about connections. The traditional jurisdiction of the bodies in charge of the procedural framework for courts and tribunals such as the Civil Procedure Rules Committee under the Civil Procedure Act 1997 kicks off when a court or tribunal process starts, albeit there have been developments over the years concerning the pre-action phase, notably the pre-action protocols in civil justice.¹

33. However the OPRC is different. Chapter 2 of the Judicial Review and Courts Act 2022 sets up the OPRC and in that chapter section 24 provides as follows:

24 Power to make certain provision about dispute-resolution services

(1) This section applies to Online Procedure Rules which provide—
(a) for the transfer by electronic means of information held for the purposes of an online dispute-resolution service to a court or tribunal, or
(b) for a court or tribunal to take into account, for any purpose, steps that a party to proceedings has or has not taken in relation to an online dispute-resolution service.

(2) The Rules may be expressed so that their application in relation to a particular service depends on things done by a particular person from time to time.

(3) The Rules may, for example, refer to such services as—
(a) appear from time to time in a list published by a particular person, or
(b) are from time to time certified by a particular person as complying with particular standards.

(4) In this section—
“online dispute-resolution service” means a service accessible by electronic means for facilitating the resolution of disputes without legal proceedings;
“particular person” and “particular standards” include, respectively, a person of a particular description and standards of a particular description.

34. So far so clear. The important thing about this section is that for the first time a rule committee has the express authority to make provision for and to set digital standards in relation to the pre-action space. Bear in mind that one thing all of the groups I mentioned have in common today is that they are already, at least in part, online.

35. And that pre-action space – and the actors in it which I have mentioned – are incredibly important as I have said.

36. However, there is a resemblance between the state we, the justice system, are in now today in our provision to facilitate access to justice, and the world of nuts and bolts before Thomas Whitworth, or computer networks before TCP/IP, or analog cell phone systems before the GSM standard and all that

¹ The full scope of rules committee’s powers relating to pre-action conduct is a matter for another day

followed it. The different actors – the courts, lawyers, tech providers and the third sector are all understandably concentrating on building bespoke solutions addressing their particular problems.

37. What s24 of the Judicial Review and Court Act allows the OPRC to do particularly is to begin moving away from the bespoke by specifying standards – such as data standards - which apply to those in the pre-action space to transfer data to the courts or tribunals.
38. The final piece of this digital jigsaw puzzle is the court itself, and so I need to address that briefly. HMCTS has been undertaking on a major technology project called the Reform programme, to digitise the courts. An enormous amount of work has been done. Although it is fair to say that in civil justice in particular, not so much has happened which is visible from the outside, although that is changing even as we speak.
39. Just to explain that last remark, one HMCTS system is for damages claims in the county court² in which both sides are legally represented, such as personal injury claims. This Damages Claims Pilot (DCP) has been up and running, taking cases digitally from issue, through defence and to case management directions for over a year. Only last week HMCTS switched on the end to end aspect of that system for the so called Early Adopter courts. Those are 16 courts in the Midlands, North West and North East. With this end to end system these cases will begin digitally, all the pleadings and evidence will be filed digitally, the directions will be given by the judge digitally (and will be seen by the parties instantaneously) and there is an electronic bundle making tool for trial. Once the trial is complete, the final order will also be held on the digital system. This is a huge step forward on the journey to remove paper from the county courts.
40. In addition to the Damages Claims Pilot, across Civil Family and Tribunals HMCTS has produced a number of other systems. There is a system called Online Civil Money Claims in which litigants in person can bring and defend small money claims. The bespoke screens are well designed to help litigants use them on their own and, for example, there is a feature to help the litigants explain their case more clearly, by using a timeline tool. There are systems for Family Private Law cases and Family Public Law cases, and there are systems for the tribunals such as the Social Security and Child Support tribunal and for the Employment Tribunal. The appearance of all this is of a range different systems.
41. But the key aspect in fact is that the systems for Civil, for Family and for Tribunals are all actually built on the same platform. It is one database. The various bespoke systems I have mentioned³ all look different from the outside, because they are intended to be well designed for the particular case type, but they are in fact just different “front ends”, the top of the stack, the outwards facing part, built up from the same underlying platform.
42. And in fact we also have a single system for the judges to use to access the database and find their electronic case management paper work. There is a single so called “work allocation tool” and “judicial case manager” – via which a judge can log in and see cases they need to deal with which, depending on which “tickets” the judge holds, might include civil, and family, and tribunals work. All in the same place. We also have a single system for listing cases – which is being integrated with the single CFT justice platform. So the digital standards for accessing this platform from the outside will be the same, whether they relate to a civil, or family or a tribunals matter.

² CPR PD51ZB para 1.2(2)

³ There are others too

43. Now recall that the OPRC has the express power to make data standards. It has that power for the courts as previous committees have had. But it also has them relating to the relationship between the pre-action providers – the ODR providers – and the court.
44. Now the way this relationship works at a technical level is by something called in API (Application Program Interface). This is the doorway which allows an external computer to put data, stored in a recognised and consistent manner, directly into a database.
45. In its fundamentals this technology isn't new. In fact, even today the vast majority of civil claims are already commenced using an API. It is a system called secure data transfer used by the bulk issuers of debt claims into the MCOL legacy IT system. But that system is out of date and will be replaced by bringing the bulk claims into OCMC.
46. However, we believe that we can go much further. We do not want the efficiency of APIs to be limited to these bulk claim issuers. The concept should be made available to as much of the justice system as possible. And once we have set the data standards for access to the court and tribunal system, these standards will amount to a platform which developers can build on.
47. This will offer benefits wider than simply transferring data to the court. Consistency in the underlying technology, should help an individual litigant navigate through the whole of the digital justice system before they ever get to court.
48. Imagine a person going to a site run by a provider of legal advice and assistance, could be a lawyer or in the third sector. They explain their problem by answering questions online – even just entering their basic details. If they are someone who does not use IT easily they may do this, as now, with appropriate help. The resulting advice may be to try an online mediation service. Options for such services are presented and the person invited to select one. They do so and their details are sent directly to the online mediation provider. We all hope for success at that stage, but let's say the other party engages in the mediation but the matter is not resolved.
49. The vision is that the provider's system will - because it rests on the same building blocks – then be able to refer them on, this next stage may then involve further advice and/or bringing a civil, family or tribunal claim into the courts and tribunals system. The person selects the option to start a court action. The system has the information to do this for them, and they can then immediately see their claim on the court's system - maybe OCMC if it is a small money claim. The data flows to where it is needed when it needs to do so. The data standards will in time mean that all this happens smoothly, without the person having to repeatedly tell their story or repeatedly upload documents.
50. This is the central proposal that the OPRC is intended to address. It shows why a focus on data may help address access to justice through the justice system.
51. I will now focus on one to two detailed aspects of this central idea to explain it a bit further.

Single point of entry?

52. Now you might think that part of the solution to many of these problems is what has been called in the past 'a single point of entry'. If only there was a single place – a single website let's say – maybe run by the Government - to which everyone could go and it would ask them what their problem was and tell them authoritatively where they needed to go and what to do. And at one stage our thinking was centred around a set up like this. And something like that looks like that may still have a role to

play. However, it does raise some difficulties and the point of this address is to explain why a data standards approach offers advantages.

53. The beauty of the data standards approach is threefold:

54. First it does not require Government to commit to building a major IT system. The point I have been labouring is that creating standards allows others to build the systems on top of that platform of standards. The digital justice system is not now and simply cannot be a single monolithic IT system. It will have a diverse set of systems reflecting the diversity of actors with a role to play in facilitating access to justice and dispute resolution. It need not, indeed cannot, be built by government nor can it be built in one go. The digital justice system already exists in the variety of IT systems in place today. What we need to do is help them to be able connect easily to the single platform of the courts and tribunals system – and to each other.

55. Second, this approach also means that we do not have to build the whole thing in one go. I am quite serious when I say a digital justice system already exists. It is not as interoperable as it could be, and that is what I am suggesting we address. But improvements in interoperability can happen gradually. Mr Whitworth's standard did not mean people had to throw away their existing machines overnight. It simply meant that when they built a new piece of it, they could take advantage of the standard. We do not need to mandate that an existing actor must reprogram their entire system tomorrow to comply with the standard. We should simply set the standard so that when someone is developing or updating their system, they can incorporate the interoperability.

56. Third, this solves the point of entry problem but in a different way. If we can specify a lower layer or platform for digital justice system, in which all providers share common data standards which allow simple connections to be made between them as appropriate, it does not matter where in the system a person arrives and first tells their story. They may arrive at the "wrong" place, but that provider can still send them somewhere else – perhaps to a general advice provider which is set up to help them or at least set up to direct them to the right place.

57. Let me take an example from the area of housing. This summer the Government launched a new service called the Housing Loss Prevention Advice Service (HLPAS). This is a non-means tested legal aid scheme for those facing the loss of their home. The problem is that the current duty solicitor scheme kicks in at court. The new scheme makes the help available in the pre-action space - from the moment the person gets notice that their landlord may be seeking possession. The advice received can cover eviction, rent arrears, housing disrepair etc. This is a great initiative but it only works if the tenant actually accesses it *before* they get to court. And to achieve that – communication, and early signposting are key.

Multifaceted problems

58. There are other advantages too to this standards first approach, which might allow us to tackle an old difficulty which has been hard to solve. That is the multifaceted nature of real people's problems.

59. To explain the next aspect I need to go back a step the current HCMTS system. There is an irony about the arrangement, whilst we have a broad single CFT justice platform, you can't get your case onto it without first fitting into a single legal category such as a 'small money claim' or a 'private family law matter' or an 'employment law dispute'. However very often in the real world the problems which people face are multifaceted and do not fit into simple legal categories.

60. Let me give you an example. In fact the example is based on a similar one which was put forward to make this point by Professor Hazel Genn at the first meeting of the Online Procedure Rules Committee. Imagine someone has an accident and suffers an injury. They may not be able to work as hard as before and their employer stops employing them. They cannot pay the rent and their landlord threatens eviction. These troubles all add up and put strain on their family life. This is sadly not at all an unlikely scenario but as you will all appreciate the example raises at least four different legal categories of problem which may involve different courts or tribunals. This person may present first at the housing ombudsman, or at the family court, they may present as a tenant in a possession list in the county court, they may present at an employment tribunal, or they may have a personal injury claim going through a pre-action portal. But the person in all these cases is the same human being.
61. The justice system now puts things into case categories, but the reality is that many people face difficulties which do not fit in so neatly. Which part of the system a person encounters (an employment tribunal, a county court possession list, or the family court) may make a profound difference to the human outcome, and currently these parts may be entirely ignorant of each other despite the single consistent and very real person at their core.
62. I mention housing again because it throws up simple but real examples of this difficulty. The Housing Ombudsman scheme plays an important role in resolving housing disputes outside court. And the scheme has an online interface which tenants can use to articulate their complaint. However, there is a limit on the scheme's jurisdiction over types of landlords. The scheme does not cover private landlords - it is not my purpose to say that it should. Nevertheless, we know that there are tenants of private landlords who contact the housing ombudsman scheme anyway - perhaps given the name of the scheme one can understand why. Now I know the Housing Ombudsman does make effort to helpfully refer them on now. But surely it would make sense if the scheme could still use the excellent user interface to gather in the details but then could just send those complaints it cannot handle to the computer of another provider which can help – even if that is simply an advice service.
63. A second example is that the scheme cannot handle an associated personal injury claim, perhaps addressing harm caused by mould – and again it is not my purpose to say that it should. But again, what would be helpful, would be the ability to link the housing issue being handled by appropriate housing provider (the Housing ombudsman) with a PI issue which itself was being handled another appropriate provider– e.g. a pre-action digital damages portal.
64. This can be achieved by allowing the different parts of this digital justice system to communicate with each other. Without doubt this would be transformative.

Data protection

65. As an aside, I should acknowledge here that I have not mentioned data protection. This is not because it shouldn't be considered. It must. But rather, by simply applying this new standards approach to the construction of digital systems we do not automatically change the approach to data protection. The digital justice system is not a single system run by a single entity, public or private. The idea is not to hold on to other people's data any more than providers or the courts and tribunals already do.

Specialist Systems

66. Another advantage of the standards proposal is this. One of the challenges in giving advice and assistance is knowing which questions to ask which person. As is obvious, housing cases require

certain information, and intellectual property cases require quite different information. Just focus on IP for a moment. This jurisdiction has done a great deal to facilitate access to justice in that area, with the IP Enterprise Court (IPEC) and the IPEC small claims track, but there is more to do. A common small IP claim in the IPEC small claims track is photographic copyright. A welcome development would be a specialist IP pre-action online dispute resolution (ODR) system. It would be able to ask the litigants the right questions and gather the appropriate information and given them appropriate advice. A specialist system, perhaps harnessing the natural language skills of generative AI, could ask the photographer claimant a series of questions designed to elicit all the particular information needed to establish that particular kind of copyright claim.

67. This targeted questioning is what some people call a decision tree. An IP focussed ODR system could have specialised decision trees, one for photographic copyright and another for product design cases. Hopefully the dispute would be resolved in the ODR system but if it did not, then the data standards will ensure that the claimant who wishes to can take the case to court seamlessly.
68. Now the great advantage of this approach is this. No matter how sophisticated a system government may be tempted to build, with decision trees and the like, the effort required to produce these sort of detailed questions, for all but the commonest kinds of cases, is unlikely to be cost effective. Furthermore, the more sophisticated, and therefore the more helpful, decision tree would be, the more likely it is that the detail will need change over time – creating what could well be a prohibitive burden of maintenance.
69. But with the approach I am describing we can continue, as now, to distribute that expertise and consequent responsibility away from centralised state-controlled systems – to the appropriate specialists in the pre-action space. This is the potential for a win win. Well-designed specialist portals for particular areas – and a generalist court and tribunal system to which it can connect if need be.

Conclusion

70. So that is the idea. To focus on the nuts and bolts, that is the data flowing between the actors in the justice system. This focus will facilitate access to justice. Individuals involved in a dispute of some kind can arrive at any point in the system. If the matter can be resolved outside a court or tribunal it will be – whether because of advice, or mediation or an ombudsman or another dispute resolution system yet thought of. None of this will prejudice the right of access to the courts. Court will be a last resort, as it should be, but that does not mean it should be difficult to access for the cases which need it.
71. We do not have to build a single public sector monolithic IT programme at huge cost and with huge complexity to provide the interconnected system we need. In fact, the opposite is true. The courts and tribunals have a public IT system, which offers something of a platform. It should be accessible for any sort of case, with a generic interface properly specified with data standards, so that it is there to be used whenever needed.
72. The whole justice system as it exists today is already a collective consensual endeavour, a public private partnership of the most proper kind. The digital justice system of tomorrow can and should become one too.

Lord Justice Colin Birss, Deputy Head of Civil Justice