Birkenhead Lecture 2017
Online Courts and the Future of Justice
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My subject this evening is that of online courts and – more broadly - the potential of technology for reshaping the public justice system.[1]   Our world is changing rapidly through technological development. I am neither a technology enthusiast nor sceptic. But I am interested in how technology is already altering how we 'do justice' and how our system might be significantly remodelled in the future.

I was an early adopter of new technology. I started using computers to analyse empirical data in Cambridge in 1972 - when a machine with possibly less processing power than my current iPhone occupied an entire building, and the simplest tasks would require me to write complicated Fortran codes and then wait overnight to discover if I had missed a space or comma and have to start all over again. So I am long familiar with the power of technology to sort and analyse. I am also certain of the value of rigorous data to support and evaluate justice system policy. During a career researching the operation of civil courts and tribunals [often closeted in court basements poring over paper files] I have frequently despaired in public about the state of court hardware and data, and I do not need convincing about the scope for improved justice system technology.[2] This is a problem I shall return to later.

But we are standing now on the brink of significant change. In September 2016 the Lord Chancellor, Lord Chief Justice, and Senior President of Tribunals published a joint vision statement signalling a 'once in a lifetime' £1billion transformation of the justice system[3]. The proposals will affect how the justice system operates, the public experience of it and how legal professionals and judiciary will function within new structures and processes. Some of this - because of the pressure to get the money out of the door while it's still available - is happening quite fast by the standards of justice system reform.

To put the transformation programme in a broader context, it can be seen as part of a global trend, which is particularly prevalent in common law jurisdictions. Although it is fashionable in the discourse around technology and the courts to suggest that courts haven't changed since the C19th, in fact, courts and tribunals have always been evolving. Although some procedural issues remain surprisingly impervious to change, the process of development and reform has been pretty constant. And the landscape of dispute resolution has also altered, with the advent of a plethora of private dispute resolution mechanisms now available including mediation, conciliation, adjudication, ombudsmen, ENE, and, of course, ODR (Online Dispute Resolution).

For this evening's purposes, I want to focus on the **public** justice system and to remind us of its societal significance. I have written in the past about the importance of a strong justice system that supports social stability, facilitates economic activity, checks the power of government and helps us to live harmonious, relatively peaceful lives[4]. In this

respect, we are fortunate to benefit from a deep rule of law culture in which the objective of **substantive justice** is pursued via a complex labyrinth of procedural rules designed to elicit truth and lead to accurate decisions on legal merits.

In my research, I have also been involved in quantifying the extent to which ordinary citizens struggle with a lack of understanding of their legal rights[5], an absence of knowledge of redress systems, and an inability to access free sources of advice - difficulties that are not evenly distributed among the population, but disproportionately concentrated among disadvantaged or vulnerable groups.

So a central interest for me this evening is the possibility of a future in which the potential of technology is harnessed to deliver a more accessible state-backed dispute resolution system, but which nevertheless remains grounded in our core rule of law values and procedures, and inspires public confidence and trust.

But before addressing that issue we need to understand what is happening in technology; how technology is being deployed to transform courts and tribunals; and why this is happening now.

What is happening now in information and communication technology?[6] A brief simplistic guide.

We are said to be nearing the end of the Third industrial revolution and entering what has been referred to as the Fourth Industrial Revolution[7]. The First used water and steam to mechanize production; the Second used electric power for mass production; the Third used electronics and IT to automate; and the Fourth will use artificial intelligence, nanotechnology, and biotechnology, to replace and augment certain kinds of labour and knowledge work. This 4th revolution is characterised by a rate of change that is exponentially faster than in preceding revolutions.

Having the internet to create and communicate information, we now have massive complex data sets (Big Data) that provide insights into processes and behaviour. In the current stage of development, artificial intelligence, or 'increasingly capable computers' (machines), draw on and analyse Big Data to predict, make decisions, and educate themselves so that they autonomously increase their own capability[8]. It used to be thought that the potential of computers was limited by the human ingenuity and intellect of their programmers. But this seems to be wrong. Not only can increasingly capable machines 'think' but that they can outperform human experts using 'brute-force processing'.[9]

These machines are capable of not only 'augmenting' the processing and decision-making of functionaries and professionals, but also of supplanting those decision-makers. Although people may express shock at the idea of software making decisions about rights issues, it is already happening. Many first line administrative decisions affecting rights are made by machines or via computer processing.[10]

A commonly cited[11] example of the power of AI is IBM's Watson computer, which in 10 minutes, diagnosed leukaemia in a patient whose case had been confounding doctors, by

cross-referencing her condition against 20 million oncology records. Another example is JP Morgan's programme called Contract Intelligence which scans a contract in seconds to interpret commercial loan agreements, thereby replacing thousands of hours of work by lawyers.[12]

More recently, while we have all become fairly used to voice recognition software, increasingly capable systems are making use of robotic sensing which enables software/machines to detect and respond to the emotions of users. Effectively they can see and touch. Known as 'affective computing', this software can scan facial actions and, in experiments, have outperformed most people in differentiating between faked and genuine pain[13].

What can all of this technology do for the justice system?
There is probably no limit, but at the moment the following are already happening in our own jurisdiction and elsewhere:
- Technology can help to reach out – communication/information;
- It can speed up processes – e-filing, online procedures; document handling
- It can simplify processes for LIPs – by embedding procedural rules within online forms and processes. You don't need to know the rule if the system prompts you to do things and explains why;
- It can facilitate the sharing of complex information instantaneously;
- It can allow people to congregate without the need for physical presence;
- It can facilitate online resolution;
- Ultimately it could support or replace human-decision-making through automated processes;
- Finally, databases of the subject matter, duration and outcome of disputes could help dispute prevention and early resolution.[14]

With this potential, what is the current vision in this jurisdiction? The answer is a justice system 'digital by default and by design'.
The 2016 Joint Vision Statement and accompanying White Paper came in the wake of three influential reports: Richard Susskind/CJC 2015 report on *ODR for Low Value Civil Claims*[15], Justice, *What is a Court* in 2016[16], and Lord Justice Briggs' *Review of Civil Courts Structure* in 2015/16.[17] The Vision Statement promised a transformation through technology to enable online access for parties in a single system for civil, family and tribunal cases. Robust document and case management systems would replace paper filing and some cases will be handled entirely online. There would also be online pleading and virtual hearings - either online or using telephone or video technology.

Why is this sudden transformation happening now?
While the technological turn in the UK can be seen as part of a global trend, there is a mighty coincidence of factors relevant to the current transformation programme. The past decade has seen a decline in justice system funding and the slashing of legal aid for civil and welfare cases. This has led to a flood of litigants in person in the courts, struggling with the complexities of an adversarial system.

From the other side of the bench, the judiciary are straining to meet the needs of LIPs, with decreasing levels of administrative support. In his 2013 Birkenhead Lecture Lord Thomas (then LCJ) outlined the challenges facing courts and tribunals and stressed the urgent need to make better use of technology to do 'more with less'. A year later, he spoke of the impact of continuous austerity on the justice system, which, unlike other areas of State expenditure, is 'unprotected from retrenchment.'[18]

The Susskind/CJC, Justice, and Briggs reports laid the ground for the development of online courts and tribunals seeing them as the answer to expensive, slow, unintelligible, processes that were 'out of step with the Internet society', as well as solving the resource problem of crumbling courts by substituting remote dispensation of justice.

The Susskind/CJC report recommended an internet-based court service, integrating online advice and dispute resolution, followed by online judicial determination as a last resort. The Briggs Civil Court Review followed this lead, pointing to the tyranny of paper, obsolete and inadequate IT and a 'shocking' and 'pervasive' lack of access to justice for ordinary individuals or small businesses. Briggs set out a blueprint for an Online Court similar to the three stage model proposed by the Susskind Report and that adopted in the British Columbia Civil Resolution Tribunal[19]:

- An automated (AI) 'triage' stage, including advice to help claimants articulate their cases; exchange between the claimant and defendant; and preparation of claim form and particulars of claim. This stage could be bypassed by represented and repeat player claimants.
- Second, a dispute resolution stage, which could involve telephone, online or face to face mediation or ENE; and
- Finally, for those cases not settled at stage one or two - a determination stage, which could comprise a conventional hearing, a telephone or video hearing, or legal determination without a hearing.

Initially announced as a 'court' designed end-to-end for use without lawyers, lawyers will not, however, be excluded from the process. A new set of simplified procedural rules will deliver increased accessibility, and case management will be delegated to 'case officers' rather than judges. The idea is that after testing on low value claims, the Online Court will be mandatory for money claims up to £25,000 (the vast majority of claims in the county courts) and that longer term, it could expand to cover higher value and other case types.

Where have we got to?
There is clearly a great deal of activity, but it is not easy to say on any one day exactly what is happening and how far any particular part of the programme has progressed. The only regular public source of updates is the 'Inside HMCTS Blog'.[20] The lack of a clear flow of communication has been a cause of some complaint among the profession, the judiciary and academics.[21] Nevertheless, it is apparent that changes have already taken place in the criminal courts and that new processes are being introduced or are about to take place in civil, family and tribunal proceedings. For those interested in the detail, I would commend Joshua Rozenberg's Gresham Lecture which provides a thorough and readable account of the background and progress of the current modernisation programme.[22]

Much of what is happening **now** does not seem to be (in the words of Lord Justice Fulford) "that dramatic".[23] There can't be many people who disagree with the proposition that the hardware and connectivity in courts needs improving, and moving from mountains of hard copy paper to having everything online is the sort of development that we have all experienced at work, in consumer transactions and public services. The Parking Appeals Service has been paperless for well over a decade.

But the vision and planning for courts and tribunals is going further. Developmental work and testing has already started on: digitisation of existing processes; development of new procedural rules; development of a common platform for initiating claims; the Online Court; online facilitation and ODR; development of iterative court and tribunal processes; online/virtual hearings; court closures and disposal of the estate.[24] The Master of the Rolls, Sir Terence Etherton, has recently referred to the six year civil and criminal reforms plan as 'th*e most far reaching in any country in the world…*'[25]

As I understand it, the change is happening in bite-sized pieces using the concept of 'agile development'. For those not fully familiar with the term, the concept of agile development is the opposite of the unfortunate big bang approaches that we have seen in the past with government IT initiatives. The modus operandi is of teams working incrementally and iteratively on different blocks, focusing on quick production of software to test. The hope is that ultimately all of the blocks can be assembled to deliver a new, coherent justice process.

If this is what is currently in development, what are the questions that we should be discussing and researching now?

My first and longest question concerns the extent to which technology and ODR have the potential to create a public justice system that is more accessible, better able to meet the needs of users and delivers procedurally fair and substantively just outcomes. Here, I wish to mention the issues I believe need to be addressed in design and the steps that need to be taken to research thoroughly the outcomes of changes, in terms of meeting those key objectives.

Second, and allied to the first issue, I want briefly to consider the implications of moving to asynchronous, iterative processes. While the proposed changes in many ways make perfect practical sense, I wonder whether are we looking at a tectonic rather than incremental shift in common law adversarial procedures and what that might mean for professional practice, for judicial decision-making and for substantive outcomes.

Third, I want to worry a bit about the move away from physical gathering in one space. I am well aware of the practical disadvantages of everyone having to congregate in the same physical space at the same time. But what are the implications of evidence only online and in writing, or presented orally but remotely? I worry about the loss of physical presence for a range of reasons and ultimately I am concerned about the long term consequences of court merely as a service rather than as a public, physical site of justice. Into this goes the question of identifying the foundational values and principles of the existing public justice system that are necessary to maintain and indeed enhance public

trust and confidence in the system – the elements essential for legitimacy; this includes the question of how justice in future would be seen to be done, if not in public?

Fourth – and remarkably little has been said or written about this issue – is the question of how the judiciary will adapt their practices and ethical codes to the new online processes and virtual hearings as they transmogrify themselves into cyber judges. And, equally importantly, how attractive will the role be to potential future judges?

Finally, in part to answer some of these questions, I want to propose a research agenda that helps us to understand the impact of changes as they happen and to maximise the positive potential of technological change, while minimising negative impacts. In this context, I will be making a strong plea for any online system to make the best possible use of this opportunity to cement into the software foundation, the ability to gather information that will be valuable for future generations of policy-makers and researchers so that our policy can be evidence-based or, even, evidence-led.

Starting with the first issue of access to justice: Why is it important?
Access to public courts and tribunals is central to the rule of law. Backed by the power of the state, courts and tribunals enable citizens and businesses to defend or protect their rights and legal interests, and ultimately provide the means to hold the government to account.

Effective access to justice involves the ability to access public processes for resolving disputes and rights claims, that lead to enforceable remedies reflecting the merits of cases according to law (the concept of substantive justice), by means of procedures that are conspicuously fair and perceived to be so (participation, procedural justice and trust). Access to justice, thus, means something more than being able to complete an online form and feel comfortable with the process. It requires the ability to engage, to participate, to be dealt with by fair procedures and to receive a substantively just outcome.

That is the individual benefit of access to justice. But the societal benefit goes further than that. Public determination of cases in a common law system states what the law is, communicates and reinforces important norms of social and economic behaviour, and provides a framework for the settlement of future similar disputes. The legitimacy of the system – the reason why people generally do what judges tell them without the need for enforcement – is based on public respect for, and trust and confidence in the system. This broad societal function of the justice system was recently underlined by Lord Reed in the Unison case regarding fees for employment tribunals. [26]

What is the access to justice problem to which online courts might be the answer?
The access to justice problem which online processes are said to address is that the courts are too slow, expensive, and complicated for people to use without help, and that for most people help is either unaffordable or unavailable. [Court fees represent another access barrier, but for the moment we will leave that to one side.] This means that many are simply excluded from access to courts and tribunals and others flounder alone in the process. But why are court procedures so complicated? It is glib to simply say 'because the legal system has been designed by lawyers for lawyers'.

It is true that legal procedures may have been devised by lawyers, but they have been endlessly redrawn, refined, reworked, and re-written with the ultimate purpose of delivering fairness and substantive justice. When we are looking at a fundamental re-think of the justice system, of making it cheaper for those with lawyers and more accessible and comprehensible for those who have to navigate the processes alone, the key challenge is always to find a balance between rules that will deliver uncomplicated, fair processes **and** the best chance of a **substantively just** outcome. **The public justice system is founded on different principles from mediation, ODR, EBay, Resolver and other private processes. Parties are not both volunteers. One side may be forced into the process against its will. The public courts are the necessary fall-back when voluntary negotiation over disputes is not possible or has failed.**[27]

To illustrate, we could devise a very simple app that would determine claims on the basis of a roll of the dice. This is obviously unacceptable, but why? Rolling dice is a fair process in that either party has an equal chance of winning or losing. But, of course, it is a process that would not deliver substantive justice and is therefore objectionable as a public dispute resolution system.

How might online courts be the answer to the access to justice problem?
The recent Justice report announced that
> *"Thanks to a reform-minded senior judiciary, supported by a major government investment in technology, we are on the brink of transforming access to justice – by both bringing our system into the technological age, and putting the needs of ordinary people at its heart."* [28]

But reading through the report I searched in vain for any detail on user needs.

We have two decades of legal needs studies that have explored how ordinary people deal with the most common everyday legal problems such as consumer disputes, neighbour problems, employment, money, debt, welfare benefits and housing problems[29]. We know that vulnerable groups experience everyday legal problems more often and do less about them. People's objectives and approach vary depending on the issue at stake and the ability to obtain advice and assistance. It also depends on whether they are a potential claimant or defendant and who the opponent is. Put simply, people want different things depending on their problem and we need a system that is sensitive to that.[30]

Compared with the number of everyday legal problems and disputes that occur, very few people seem to end up in court or tribunals. What we know from research[31] and judicial statistics[32] is that in the vast majority of county court cases the initiator is a business or institution rather than an individual. With the exception of personal injury proceedings, individuals' experience of court proceedings is as a defendant rather than as claimant. So the claims for the access to justice benefits of online courts and ODR need to be viewed in that context.

This is the difficulty of generalising about 'people' and 'the justice system' in general. The experiences of users of family courts, civil courts, criminal courts and tribunals are very different, because although, as Lord Thomas pointed out to the Justice Committee

recently, there are generic functions of courts and tribunals[33], the <u>experience</u> of the user and what they need and want varies dramatically.

Thinking about a system tailored to the needs of users, we want something different for the alleged offender than for the bewildered benefit applicant, the consumer wanting his goods replaced, the parents wanting access to a child, the small trader suing for his payment, the indebted householder being sued by his utility company, the represented personal injury claimant, the non-English speaking asylum seeker or the sophisticated tax-payer contesting a VAT penalty.

In terms of objectives and resolution preference, what research tells us is that what people want is not to have the problem[34]. They do not crave involvement with legal processes, but they do want the problem to be resolved in their favour. Often, they would prefer the law to be different from what it is. We have learned that many people have only a weak or absent understanding of their legal rights[35], that there are significant barriers to obtaining free legal advice, and that many cannot afford or will not risk legal costs.

A relatively swift, cheap, fair, online service, accessed from the comfort of home or even on a hand-held device which engages both parties in the process and incorporates the possibility of ODR should be attractive for certain cases. Literate, educated individuals and small businesses, who cannot afford lawyers, will be likely to benefit. Those who previously might have paid for legal advice may feel that that is no longer necessary and can navigate a new system without advice. That is the ambition of the Online Court and it has a great deal of potential to provide an improved service to many, and the possibility of redress to some who currently feel excluded.

But what of the more complex cases and those who lack the energy or basic competences to self-serve in a digital by default justice system?
The Government in its Digital Strategy 2013 estimated that across the UK, when engaging with government services, only 30% of the population are 'digital self-servers', meaning 70% will require assistance to use digital services. Recent studies show that the young and elderly, as well as those with low educational attainment, are less likely than others to use the internet to resolve legal problems and that, perhaps surprisingly, young people 'struggle to interact with the internet as a legal information resource' and are uncritical about the material that they use.[36] If it is true that even the homeless have handhelds, that may be for comforting diversion. It isn't to launch legal proceedings. Leaving aside computer literacy, some 16% of adults in England are "functionally illiterate".[37] The online forms I have seen both in development here and on the Canadian Online Resolution Tribunal would be entirely out of reach of the kinds of people that my students deal with in our free legal advice clinic in a doctor's surgery in East London.

The 2016 impact assessment conducted for the 'Assisted Digital' Court Reform programme[38] recognises that there is no such thing as an 'average user' of the justice system, and so a blanket approach to digital support would not be appropriate. The plan is to design and build 'tailored solutions' around the needs of users. Options are to supplement online processes with telephone support, a paper option, or possibly more

intensive face to face assistance. I am aware that HMCTS have been engaging in 'user' testing and that a group of advice organizations have been advising about how best to adapt processes to be accessible[39].   Testing and development has to be a continuous and iterative process involving a wide range of potential claimants and defendants and those who advise. And the objective of testing and evaluation should go beyond usability and address questions of perceptions of procedural fairness, comprehension of the significance of procedural steps, and substantive outcome.

I want to turn now to the implications of procedural change in the digital by default justice system.
In an essay devoted to the significance of procedural justice to the rule of law, Jeremy Waldron has said that '*court hearings, and arguments are aspects of law which are not optional extras; they are integral parts of how law works*' He goes to argue that '*procedural characteristics are not just arbitrary abstractions. They capture a deep and important sense associated foundationally with the idea of a legal system, that law is a mode of governing people that treats them with respect….*'[40]

I have argued previously that changes in court procedure and other policies affect not only the question of access to the courts, but also the outcome of cases, by affecting the balance of power in litigation.[41] So I am interested in the question of how the quite substantial proposed changes to procedure will affect access, outcomes, professional practice, and the role of the judiciary.

In both courts and tribunals, the description of the move to online processes at first sight suggests a significant shift from traditional adversarial procedure. In the online court, we are moving to integrated triage/advice and integrated ODR. In tribunals, there is an explicit shift to an online, iterative process. It is sometimes difficult to be clear whether descriptions of proposed changes apply across the board or only to certain parts of the justice system. But in explaining the approach of the modernisation programme, the Senior President of Tribunals has urged people to change their view of litigation in general 'from an adversarial dispute, to a problem to be solved.' [42] With respect, this concept is only appropriate for some disputes in some forums. He has said that similar principles will apply across all jurisdictions (civil, family and tribunals) although they may be applied in different ways depending on the type of dispute. So on the one hand there are some 'one-size-fits-all' principles, but on the other they will be applied differentially. All of the changes are said to be about improving access to justice.[43]

Under the new system envisaged for tribunals, all participants in cases, including the appellant, the respondent and Government department, and the tribunal judge will be able to iterate and comment online on the case papers so that issues can be clarified and explored. This doesn't need people to congregate at the same time or, indeed, at all. Describing what sounds very much like a civilian inquisitorial process, the Senior President has said that there will be no single trial or hearing, but the determination process will stretch over a number of linked stages. 'We will have a single digital hearing that is continuous over an extended period of time.'[44] [From public comments I think that by 2020, such changes are intended to apply in most courts and tribunals.]

Procedural due process within the court system is aimed at ensuring that the law is administered fairly and uniformly thus inspiring confidence in the justice system. In adversarial proceedings, the parties define the scope of claims and defences, and broadly take responsibility for the conduct of the case. As a result of recent rule changes and changes in judicial approaches, judges tend to ask more questions than was once the case and in tribunal proceedings, where unrepresented parties are very common, judges have developed what has been called an 'enabling function'[45] – intervening to ensure they have elicited the information they need to decide. Since the post LASPO upsurge in litigants in person in courts, particularly in the family court, there has been increasing judicial authority for judges to take a more inquisitorial approach.[46]

The inquisitorial approach puts a greater burden of responsibility on the judge and changes the role of advisers and advocates. It alters the way evidence is presented and how it would be challenged. The impression is of a dynamic, text-only process that requires a considerable shift in judicial behaviour and ethics. While we have already seen an adaptation of judicial behaviour to the demands of dealing with LIPS, under the new online procedures, the boundaries of what is appropriate for a judge in an adversarial system will not merely shift, but disappear.

Having watched many tribunal proceedings, the idea of an iterative process makes a lot of sense.   Why wait for everyone to meet in the hearing room to discover that a critical piece of information – like medical evidence – has not been supplied, leaving the tribunal judge with the dilemma of deciding the case without the all of the necessary information, or adjourning - creating inconvenience and wasting time and money?

So iteration may indeed lead to more efficient and possibly more accurate decision-making. Indeed, it has recently been suggested that asynchronous processes help unrepresented parties, who are often flummoxed at hearings by allowing them to amend as they go along[47]. But it shifts the balance of responsibility, impacts the independence of the judge and increases the scope for bias. Moving to a sequential, iterative process of determination at the same time as transferring to online communication introduces quite a few simultaneous changes to traditional process. In assessing whether these changes will have a beneficial, neutral or negative impact on public perceptions of process and substantive outcome, it will be necessary to think hard about the comparison case. Versus the present system, will everyone gain from the new process or will there be some losers? And versus the present system, might there be less efficiency in some areas than currently?

And how will the legal profession and advice agencies adjust to the new iterative online processes?   A greater level of representation and advocacy through online iterative processes and at virtual hearings could be possible, but that will require adapting to the new environment, investing in hardware and retraining.

And what will be the principles determining which cases will be allocated to online processes and virtual hearings? What are the options? Complexity? Value? Citizen/state? Party and party? Children involved? Power relations? Loss of home? Loss of income? Individual v Business? Institution v Individual? Matter raising a legal issue of public

importance? Human rights? International commercial litigation?   Will there be cases where we want to ensure a public legal determination rather than an online decision or ODR? Where, how and by whom will the principles be articulated?

And on the subject of ODR/ADR …

It seems to me that in both tribunal and court proceedings, there is a will to integrate an ODR stage into new processes. What does this mean? It means that at some point after the beginning of the case and presumably once sufficient information has been 'uploaded' by both sides, there will be an attempt to achieve an online facilitated settlement between the parties. Will this be mediation or conciliation and by whom?

There is a tricky question here, because of the critical contrast between the **public** justice system and **private** dispute resolution. Aside from the practical problem of how one ensures confidentiality of the ODR process if it fails, the spirit of ODR is that it does not focus on legal merits, but rather on problem-solving and achieving a settlement that the parties can live with. We don't know much about the practices or processes or outcomes that take place. It is opaque. The potential use of algorithms in the initial advice stages prior to ODR and, potentially, within the ODR process simply exacerbates this issue.

So we need to consider whether, once ODR is fully integrated into public court processes, will the ethical principles of ODR modify to chime with justice system values, or will we view the justice system as having changed in terms of its commitment to substantive justice? If the latter, it raises some questions about the role of an independent judiciary. As Judith Resnik has compellingly remarked:

> *"The foundation of the authority of judges is that their power to impose judgment comes from the structure of adjudication, its constraints, and its public character. If the task of adjudication is replaced with that of shepherding parties toward private conciliation, the independence of judges becomes a goal without a purpose or a constraint. The result is the decline of adjudication's potential to serve and to support democracies."[48]*

Moving on to virtual court rooms and online hearings.

An important aspect of the modernisation programme is a reduction in adjudication following a hearing that involves simultaneous congregation of parties and their representatives (if any) with a judge in a public physical space called a court or tribunal. As we have seen, the vision is for cases to be resolved by ODR, or failing that for determination to follow an online iterative exchange between the judge and parties (tribunals), or by telephone conference or some sort of video link (or possibly hologram since the technology here will surely develop).

Remote working and fully virtual hearings are currently being developed and piloted through expansion of video and telephone links to provide access either into a physical court room or into the new design of a virtual court room.

A pilot in immigration cases involves the applicant, solicitor, Presenting Officer and judge all joining remotely from different locations. The prototype apparently includes a virtual waiting area, a countdown timer on the screen, and an online administrator available to

liaise with those waiting for the hearing. People are able to self-check on the screen and there is advice about where best to sit in the room. I have been told about this but haven't seen it. Hearing the description of these efforts made me wonder whether the experience will be less or more stressful than physical presence in a court or tribunal for a claimant or defendant facing a decision that could significantly affect their rights or entitlement.

The advantages of the move to online and virtual hearings are said to include ease of access for parties and representatives by removing the need to travel to a court, and the opportunity for efficiencies by closing courts. Judges may be 'virtually hearing' the case sitting in their courtroom or chambers, but there is also the possibility that in due course they would not need to travel to work, but could deal with the hearing from their home.

If these are some of the possible advantages, what are some of the apprehensions about the process from access to justice, professional practice, and legitimacy perspectives? Or to look at it another way, what are the important practical and symbolic features of courtrooms and hearing processes that might be lost?

Starting with the practical. Common law adversarial hearings traditionally have been said to provide the opportunity for evidence to be presented in person and to be tested before a neutral and largely impassive judge. Parties can be represented or they can advocate their case themselves. They have their 'justice moment'[49] – their day in court – and they can see and hear justice being done in a physical space that communicates, through semiotics, the seriousness of the process and its public nature. Professionals prepare cases for oral argument, marshal the legal and factual strengths and then 'perform' before the judge in order to achieve the best possible outcome for their clients. The judge has the opportunity to hear evidence and legal argument, to see the disputing parties face-to-face and to make assessments of the opposing cases as presented and the credibility of the evidence.

Whether being able literally to see and hear parties and witnesses assists the judge in assessing credibility is highly contested. Some judges think it essential. Others think that not only is it NOT essential, but that it is misleading, since the best liars are precisely those that are most convincing. Experimental research supports the assertion that judges do little better than chance in detecting lies, and that factors such as appearance, eye contact and physical ticks can be misleading in assessing credibility.[50]

The question that we should be interested in is whether virtual hearings are an improvement on determination on the papers (quite possibly), but less effective or fair than face to face physical presence? In the tribunals field there is longstanding evidence that cases determined solely on the papers are less likely to succeed than at oral hearings, although a recent experimental study suggested this was largely explained by additional information elicited at the hearing. It did, however, also suggest that the credibility of the claimant was rated more highly when she had been seen and heard.[51]
There is growing interest in the impact of interpersonal communication through different media in a range of contexts - what happens when you have skype or video links or no images at all? Research suggests that virtual communication can create a different

relationship to that built on face to face communication. For example, in video conferences the viewer may take shortcuts when evaluating information presented by the speaker, making judgements based on how likeable they perceive the speaker to be rather than the quality of the arguments presented by the speaker.[52]

In criminal trials, research is currently being conducted into the impact of digital presentation of evidence on jury decision-making. For example, do juries perceive a witness who gives evidence in the witness box in court as more believable than a witness giving evidence "remotely" over a live link or through pre-recorded means, and does this affect jury verdicts?[53] The key question is whether technology assists judicial procedures in terms of process and outcome and whether any influence is neutral, beneficial or biasing. And if so why?[54]

Perhaps equally important, there are questions about how a virtual hearing affects the way that parties participate in the process - the way that they present their evidence or tell their story and their perception of the legitimacy of the proceedings.

One of the very few studies in this field looked at the use of interactive video technology in US deportation cases. Detained litigants seen over a video link were more likely to be deported than detained in-person litigants, but this was largely because those allocated to video hearings had failed to engage with the system. Explanations for the outcome were that video hearings were thought to be unfair and illegitimate, there were technical challenges in litigating claims over a screen, and video litigants had lower-quality interactions with other courtroom actors.[55] **Litigants separated from the traditional courtroom setting simply disengaged from the entire process.** If this were to be borne out by other research it would tell us something about the flip side of people being put off by court. One of the judges in the study commented:

> *'If you come into the courtroom …and you see the judge at a big desk wearing a black robe, then you realize it's a court. If you take that same person and you put him in the video room . . . they see me basically as a big, disembodied head on the television. How is that any different than watching People's Court or Judge Judy? We get it because we do it all the time... But I'm not sure with the particular respondents whether they realize sometimes what goes on.[56]*

Aside from the practical questions of the quality of interaction and its impact on evidence and outcome, a second central issue in relation to online courts is that of **openness and transparency.** Jeremy Bentham believed that legal disputes should be determined via public hearings, because publicity offers the values of truth, education and discipline – keeping the decision-making process and the judiciary themselves under scrutiny.[57]

The critical factor shaping popular legitimacy of the justice system is an evaluation of the fairness with which the courts exercise their authority. Being seen as fair involves transparency in procedures, conspicuous impartiality and consistency, explanation of rules and decisions, and the promotion of procedures that give parties a voice in the proceedings.[58]

Trust in legal processes come from an assessment of the character and motivation of judicial authorities – from the perception that the authority is seeking to treat people with respect.

This leads neatly to the question of how all of this will affect judicial behaviour, and the issue of judicial training and recruitment.
Reducing paper, easing communication and doing more work on the telephone can be seen as reasonable constructive developments that should make the lives of judges easier. But as we have seen, the plans for the Online Court are more ambitious than that. According to Briggs LJ it marks a 'radical departure from the traditional courts by being less adversarial, more investigative', and by 'making the judge his or her own lawyer'. Given that the vision for the work of the OC is to extend to a wide caseload, there will be a need for a programme of training to prepare the judiciary for the new cyber environment[59].

The new Judicial Attitudes Survey of UK Judiciary in courts and tribunals conducted in 2014 and 2016 revealed high levels of commitment to the judicial role and professional standards, but low levels of satisfaction with workload, working conditions, and administrative support. The judiciary are not currently content. Relevant to this evening's topic, factors causing discontent included frustration with the quality of court technology and connectivity, but also, among those already using digital case management systems, dissatisfaction with the usability of the system and with the training given in preparation for working with digital processes.[60] In the 2016 survey, among the factors of most concern to serving judiciary was the rise in litigants in person (77%) and, interestingly for our purposes, the introduction of digital working in court (one-quarter (26%) of respondents concerned) and reduction in face to face hearings (25%). This was particularly so for District Judges, Tribunal and Upper tribunal judges.[61]

Regrettably, we know very little about what makes judging a satisfying career for legal professionals switching from practice to the bench[62]. It will be important for morale, retention and recruitment to prepare judges for the different aspects of their new online roles and then to monitor how their new responsibilities and working practices impact the ethos, collegiality and perception of their role.

If these are some of the issues for discussion, what should the research agenda be?
Most of my top research questions feed into the modernisation programme's broad ambition of improved access to justice. By that I do not merely mean can people **access** the online system, but can they **participate effectively** and **feel they have done so,** and achieve **substantively just outcomes**. That sounds like a large topic, but could be reduced to some relatively straightforward empirical questions:
- Who will the future users be? Will the types of people with the types of problems who are currently NOT engaging with the justice system be encouraged to use the system so that they are no longer excluded? (Access)
- Equally importantly, might it be possible that the sorts of people and problems that are **currently within** the system are deterred by online processes and either shift to private processes where they exist, or give up on the possibility of redress, thus **reducing rather than increasing access** to justice?

- And, conversely, could the new system be a happy hunting ground for tech-savvy recreational litigants? (too much access)
- Will LIPs find the system less daunting to use and will they perceive the system to be fair and to do justice? (**Participation and trust**)

     Getting users to say whether a process is **manageable** is one thing. Whether they **like it** is another. Whether **they would choose** to deal with problems that way given a choice, is yet another. [63] And whether the process delivers **substantively just outcomes** by means of a fair process is yet another still.

- Will online systems reduce the challenges judges currently face dealing with LIPs? Will online LIPs require **less** judicial time?
- Will power imbalances between litigants be unaffected, reduced or magnified by online processes? (effective access and substantive justice)
- Will outcomes be unaffected, or more or less substantively just than existing processes? (substantive justice)
- What will be the measure of success for ODR – just settlement or *just* settlement (substantive justice and trust)? Will we be measuring it?
- Will the outcomes of virtual hearings be unaffected, or more or less substantively just than face to face or paper hearings, and will participants perceive them to be fair (participation, substantive justice, trust)

In order to begin to answer these and other questions that could demonstrate the success of the change programme in relation to one of its key justifications, we need data, and in my view we have an important opportunity to put ourselves in a better position than we have ever had in the civil justice sphere.

We have been hampered for as long as I have been researching by a relative data vacuum relating to the details and dynamics of proceedings in civil courts and tribunals. [The situation in crime has always been better.] But developing a common system for civil, family and tribunals with modern hardware and new software presents an unparalleled data collection opportunity. This is the chance to ensure that data are collected in such a way that in the future we **will** be able to address important questions about the operation of the system and learn about the dynamics of disputes, processing, outcomes, dispositions and trends over time. The potential is considerable.

But it is important to get the software architecture correct at the outset to provide maximum flexibility for the future. In this respect, there are conflicting pressures. The overriding objective in the agile development process is 'minimum viable product' – collect the absolute minimum to do the job you need to do. This is an essential aspect of agile development which happens in 'sprints'. This keeps development and data entry costs to a minimum and minimises the 'burden' on users of the system. This is entirely understandable from an operational perspective, but not from the perspective of the need to evaluate the impact of the new system and to be in a position to judge whether it is achieving its access to justice objectives.

The opportunities offered by a comprehensive, responsive and flexible database for evidence-based improvement to the justice system are breath-taking to consider as we

gaze into (out of) the current information black hole, and it is important that we seize this opportunity now while the new system is in development.

And finally, we need to be thinking about how legal advice services, lawyers and judges need to adapt to the online world. Will lawyers and advice agencies be able to use the potential of online processes and virtual hearings to assist the access to justice ambition of the programme? And in terms of open justice, how will the media and other interested parties follow cases if everything is on-line and in private? And will existing judges find technological changes helpful to their role, more or less satisfying than the business of judging now to the extent that they will encourage their most talented colleagues to join the virtual bench of the future.

To Conclude:

That's a big agenda and a lot of questions designed to stimulate debate and to start thinking about evaluation research. My concluding comments are simply a plea for the future of the programme. We have an opportunity to modernise and reshape our public dispute resolution process to provide greater access for those who feel excluded from the public justice system and greater ease of use for those who are currently struggling without representation.

But we need clarity and co-ordination over objectives (for example high court fees work against access), to distinguish clearly between different categories of case and people and articulate the principles that will apply in the future in determining what procedures are appropriate for which types of people with which types of legal disputes. Communication is always essential in any change programme and there is a need for this to be better accomplished. The profession, advice agencies and universities need to prepare for operating to maximum effect in a substantially online environment. The increasingly online environment will transform the role and experience of our judiciary and their performance and training will need to adapt to meet that challenge.

Finally, while we are debating the ways in which the court system is said to be failing now, it is important to remind ourselves what, despite resource constraints, it currently does well and to ensure that its core values and characteristics are imported, as far as possible, to the system of the future. This includes, among other things, transparency, integrity, impartiality, fair process, and substantive justice, presided over by an incorrupt and skilled judiciary performing to the highest standards.

[1] I would like to acknowledge the contribution to this lecture of Natalie Byrom, Director of Research and Learning at the Legal Education Foundation, with whom I have had many constructive discussions about the issues and who has alerted me to some interesting material; and Richard Susskind with whom I have enjoyed repeated lively, informative and inspiring discussions. I would also like to thank Sir Ernest Ryder (Senior President of Tribunals), John Aitken (Social Entitlement Chamber President), HHJ Phillip Sycamore (Health, Education and Social Care Chamber President), Susan Acland-Hood (CEO HMCTS) and Joshua Rozenberg for providing me with factual updates on digital developments. Finally, I am grateful to Daniel Appleby who has suggested invaluable and savage edits of what was originally a much longer lecture.   Any errors or misconceptions in the text are mine.

[2] Hazel Genn, 'Why The Privatisation of Civil Justice Is a Rule of Law Issue', 36th F A Mann Lecture, November 2012 available at https://www.ucl.ac.uk/laws/judicial-institute/layout-components/36th_F_A_Mann_Lecture_19.11.12_Professor_Hazel_Genn.pdf

Hazel Genn, *Central London Pilot Mediation Scheme, Evaluation Report*, (London: Department for Constitutional Affairs, 1998), http://www.cnmd.ac.uk/laws/judicial-institute/files/Central_London_County_Court_Mediation_Scheme.pdf ; Hazel Genn, *The Pre-Woolf Litigation Landscape in the County Courts*, 2002, www.ucl.ac.uk/laws/genn,   Hazel Genn & Yvette Genn *The Effectiveness of Representation in Tribunals*, Lord Chancellor's Department, 1989, https://www.ucl.ac.uk/laws/judicial-institute/files/Effectiveness_of_Representation_at_Tribunals.pdf

[3] Lord Chancellor, Lord Chief Justice and Senior President of Tribunals, *Transforming our Justice System: Joint Vision Statement*, September 2016, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/553261/joint-vision-statement.pdf

[4] Hazel Genn, *Judging Civil Justice*, Hamlyn Lectures 2008, Cambridge University Press, 2009.

[5] H Genn, *Paths to Justice: What People Do and Think About Going to Law*, Hart Publishing, 1999; more recently see Pascoe Pleasence and Nigel Balmer, 'Wrong about Rights: Public Knowledge of Key Areas of Consumer, Housing and Employment Law in England and Wales' *Modern Law Review*, September 2017, Volume 80, Issue 5, pp 836–859.

[6] For an informative and engaging account see Richard Susskind & Daniel Susskind, *The Future of the Professions*, Oxford, 2015, especially Chapter 4.

[7] Klaus Schwab, *The Fourth Industrial Revolution: what it means, how to respond,* January 2016 *https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/*

[8] Susskind and Susskind op cit n 6, p272

[9] Ibid p. 45

[10] Justice Melissa Perry, Idecide: Administrative Decision-Making In The Digital World, *Administrative Law*, (2017) 91 ALJ 29.

[11] https://www.centreforpublicimpact.org/courting-change-verdict-ai-courts/

[12] A more prosaic example of the everyday use of algorithms (or robots as people wrongly refer to them) making decisions on rights is at Amazon. Did you know that when you return something to Amazon an algorithm decides the response on the basis of e.g. how often you return, whether you are an amazon prime member etc.? They may give you your money back and tell you to keep the product or, less favourably, they may cancel your account if they think you complain too often. Algorithms or robots decide how to filter your mail. Whether something is legitimate and should go into your inbox or whether it should be consigned to junk. It 'learns' by seeing when it has made an error and you move something from junk back into your inbox.

[13] Marian Stewart Bartlett , Gwen C. Littlewort , Mark G. Frank , Claudia Lainscsek , Ian R. Fasel , Javier R. Movellan, 'Automatic Recognition of Facial Actions in Spontaneous Expressions', *Journal of Multimedia*, Vol. 1, No. 6, September 2006, Pp22-35.

[14] E Katsch & O Rabinovich-Einy, Digital *Justice: Technology and the Internet of Disputes,* OUP, 2017.

[15] Civil Justice Council Online Dispute Resolution Advisory Group, *Online Dispute Resolution for Low Value Claims* https://www.judiciary.gov.uk/wp-content/uploads/2015/02/Online-Dispute-Resolution-Final-Web-Version1.pdf

[16] Justice, *What is a Court*, 2016, para 1.1 https://justice.org.uk/wp-content/uploads/2016/05/JUSTICE-What-is-a-Court-Report-2016.pdf

[17] Lord Justice Briggs, Civil Courts Structure, Interim Report, December 2015 https://www.judiciary.gov.uk/wp-content/uploads/2016/01/ccsr-interim-report-dec-15-final1.pdf and Final Report July 2016

https://www.judiciary.gov.uk/wp-content/uploads/2016/07/civil-courts-structure-review-final-report-jul-16-final-1.pdf

[18] Lord Thomas, *Reshaping Justice*, Speech to *Justice*, 3 March 2014, available at
https://www.judiciary.gov.uk/wp-content/uploads/JCO/Documents/Speeches/lcj-speech-reshaping-justice.pdf

[19] British Columbia Civil Resolution Tribunal https://civilresolutionbc.ca/ , Shannon Salter and Darin Thompson, 'Public-Centred Civil Justice Redesign: A Case Study of the British Columbia Civil Resolution Tribunal' *McGill Journal of Dispute Resolution*, Vol. 3, 2016-2017
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2955796

[20] https://insidehmcts.blog.gov.uk/

[21] Following a fracas with the legal profession about flexible working hours in courts, in September 2017 HMCTS Chief Executive Susan Acland-Hood used the blog to announce that pilots would be halted and to apologise for poor communication and insufficient 'listening'.
https://insidehmcts.blog.gov.uk/2017/09/21/were-pausing-court-hours-pilots-to-get-evaluation-and-other-changes-right/ Susan Acland-Hood, Blog post 19 September 2017 – 'we have not talked widely enough yet about our reform plans; but more importantly, I don't think we've listened enough, or given enough ways for people who care about the system and how it works to help shape its improvement. I'd like to change that; and my own discussions and engagements on Twitter and elsewhere have shown that there's a great appetite for this, but also much more we need to do to hear what's being said. So, to begin with, I propose to write a set of blogs that outline what we need to do, what we've done so far, what our plans are, and how to get involved in shaping HMCTS's reforms for the future.'

[22] Joshua Rozenberg, *The Online Court: Will IT Work?* Kindle Edition, Updated August 2017. See also Gresham Lecture September 2016, updated regularly.

[23] Lord Justice Fulford Draper Lecture 2016 , University of Sussex 'The Rise of the Cyber Judge',
https://www.youtube.com/watch?v=8QnDcaZzl2w

[24] In his annual report published in September 2017 https://www.judiciary.gov.uk/wp-content/uploads/2017/09/lcj-report-2017-final.pdf pages 7-9. The LCJ confirmed that the same single process will operate across all civil, family and tribunals cases, supported by a single set of new rules designed specifically for the process. HMCTS projects are now building component parts which, when put together, will form the same single process. These include: In the Social Security and Child Support Tribunal – parties will be able to resolve their disputes online using a digital end to end service where parties and judges will be able to view evidence online through a Continuous Online Hearing. A digital case file will allow users to track and monitor their case through "Track My Appeal" and access reliable signposting and guidance. Parties will be able to see the grounds of a dispute and further evidence through digital evidence sharing. Apply for a Divorce – applicants will be able to process an undefended divorce online from their home, with additional features added in time, including payments and uploading documents. Apply for Probate – an online service for people applying for grants of probate. Tax Online Project – this project enables appeals to be lodged with the First-Tier Tax Tribunal online. Civil Money Claims – this online service will enable parties to resolve money claims online using a largely automated system for claims under £25k and streamlined digital pathway for all other civil money claims.

[25] Sir Terence Etherton, Master of The Rolls, 'The Civil Court of The Future', The Lord Slynn Memorial Lecture, 14 June 2017, https://www.judiciary.gov.uk/wp-content/uploads/2017/06/slynn-lecture-mr-civil-court-of-the-future-20170615.pdf. The Senior President of Tribunals has said that using innovation and digital tools the programme will recreate local justice with the judiciary at its heart, delivering a much simpler system justice system to citizens empowered to access it. 5th Annual Ryder Lecture: the University of Bolton 'The Modernisation of Access to Justice in Times of Austerity' The Rt. Hon. Sir Ernest Ryder, Senior President of Tribunals 3 March 2016.

[26] '…the value to society of the right of access to the courts is not confined to cases in which the courts decide questions of general importance. People and businesses need to know, on the one hand, that they will be able to enforce their rights if they have to do so, and, on the other hand, that if they fail to meet their obligations, there is likely to be a remedy against them. It is that knowledge which underpins everyday economic and social relations.' R (on the application of UNISON) (Appellant) v Lord Chancellor (Respondent) [2017] UKSC 51
https://www.supremecourt.uk/cases/docs/uksc-2015-0233-judgment.pdf , para 72.

[27] On this and other issues see a very helpful unpublished paper by David Harvey on the Online Court presented to the Courts Technology Conference 2-17 in Salt Lake City Utah on 13 September 2017 and kindly made available to me by the author. Available online at
https://theitcountreyjustice.wordpress.com/2017/09/29/ctc-2017-the-online-court/

[28] Justice, *What is a court*, 2016, para 1.1 https://justice.org.uk/wp-content/uploads/2016/05/JUSTICE-What-is-a-Court-Report-2016.pdf

[29] Pascoe Pleasence and Nigel Balmer *How People Resolve 'Legal' Problems*, Legal Services Board 2014, p19. https://research.legalservicesboard.org.uk/wp-content/media/How-People-Resolve-Legal-Problems.pdf

[30] The high profile termination of an online divorce resolution programme in the Netherlands has raised questions about assuming what the public might want from dispute resolution processes and what systems will or will not improve access to justice. Commenting on another apparent online programme (the eKantonrechter - an option for parties to submit housing employment and other civil matters under 25,000 euros for rapid decision online) the Dutch judge Dory Reiling observed that the problem is thinking that we know what users want, when in practice they want something quite different. Dory Reiling 'Beyond Court Digitalization With Online Dispute Resolution', *International Journal for Court Administration,* Vol. 8 No. 2, May 2017, ISSN 2156-7964, http://www.iacajournal.org/

[31] Hazel Genn, The Pre-Woolf Litigation Landscape in the County Courts, September 2002, www.ucl.ac.uk/laws/genn

[32] The 2016 Judicial Statistics tell an interesting story. In the county courts there were around 1.8m claims of which more than 80% were not defended. Of those that are defended about 160,000 are allocated to track (8% of issued about 55% of defended cases). Of those, 53000 go to trial (3% of cases issued and 19% of cases issued and 33% of cases allocated). So of all cases issued in the county courts only about 3% go to a hearing. The vast majority of claims issued are specified money (1.4 million). Unspecified money claims represent about 8% of all claims issued of which the vast majority are personal injury claims (133,882) the remainder being possession cases (155,825) and other non-money claims (124,326).

[33] Lord Thomas in his evidence to the Justice Committee in September 2017 said: 'We are trying to produce an online court. Some people have referred to it as the online court for civil. It is not—it is an online court for everything. We have taken the view that you need a single process…, the history of having different processes in different parts of our system—family, tribunals and civil—is a product of historical accident.' He went on to say that essentially the process is the same whether you are in a tribunal, having a divorce or a civil dispute. http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/justice-committee/the-lord-chief-justices-report-for-2017/oral/70446.pdf Q16.

[34] Hazel Genn, *Paths to Justice*, op cit, n5; Nigel Balmer, *English and Welsh Civil and Social Justice Panel Survey Wave 2,* Legal Services Commission, 2013, http://webarchive.nationalarchives.gov.uk/20130403062222/http://www.justice.gov.uk/downloads/publications/research-and-analysis/lsrc/lsrc-report-csjps-wave-2.pdf

[35] Pascoe Pleasence and Nigel Balmer *Modern Law Review* 2017 op cit n.5, '…public ignorance of law is ubiquitous, can act to undermine efforts to navigate the legal framework of everyday life, impacts on the outcome of legal issues and imposes burdens on legal institutions. It strikes at law's efficacy, efficiency and legitimacy…our findings of social patterning in levels of legal literacy indicate that supplementary assistance is important for some sections of the community if understanding of law is not to act as a substantial barrier to engagement with it.', p858.

[36] Catrina Denvir , *Online Courts & Access to Justice: Why we should care about being digitally defaulted*, blog post July 30, 2017 https://www.catrinadenvir.com/single-post/2016/05/09/This-is-your-first-post

[37] A recent study by the OECD reported that the UK had the lowest literacy rate of any developed nation. It reported that around 20% of English 16-19 year olds have low literacy skills https://www.oecd.org/eco/growth/Going-for-Growth-United-Kindgom-2017.pdf. This is backed up by a report from the UK's Literacy Trust, which explains that 15% of adults in England are "functionally illiterate". This means that their literacy is below what is expected of the average 11 year old https://literacytrust.org.uk/parents-and-families/adult-literacy/

[38] Assisted Digital Court Reform Impact Assessment https://consult.justice.gov.uk/digital-communications/transforming-our-courts-and-tribunals/supporting_documents/assisteddigitalia.PDF

[39] The Canadian Resolution Tribunal took seriously user involvement in developing processes although their budget was very limited.

[40] Jeremy Waldron, 'The Rule of Law and the Importance of Procedure', *p* 15, in James E Fleming (ed) *Getting to the Rule of Law*, NYU Press, 2011.

[41] Hazel Genn, 'Understanding Civil Justice', in Law and Public Opinion in the 20th Century, M. D. A. Freeman (ed.), *Current Legal Problems* vol. 50, (Oxford University Press, 1997)

[42] Lord Justice Ryder, 5th Annual Ryder Lecture, University of Bolton, March 2016, https://www.bolton.ac.uk/MediaCentre/RyderLecture2016Pdf.pdf

[43] Lord Justice Ryder, UCL panel on 'The Case for Online Courts', 16 February 2017, https://www.laws.ucl.ac.uk/event/the-case-for-online-courts/

[44] Ibid.

[45] Sir Andrew Leggatt, *Tribunals for Users: One System, One Service*, (Lord Chancellor's Department, 2001).

[46] "[T]he process of fact finding in family proceedings is quasi-inquisitorial. The welfare of a child may sometimes require a judge to make decisions about facts and/or value judgments that are not asked for by either party. A judge cannot shrink from doing so. That is his function. He must identify such questions and where necessary decide them..." Ryder, LJ Re D (A Child) [2014] EWCA Civ 315.

[47] Ayelet Sela (2016) "Streamlining Justice: How Online Courts Can Resolve the Challenges of Pro Se Litigation," *Cornell Journal of Law and Public Policy*: Vol. 26 : Iss. 2 , Article 3. Available at: http://scholarship.law.cornell.edu/cjlpp/vol26/iss2/3

[48] Judith Resnik, 'The Contingency of Openness in Courts: Changing the Experiences and Logics of The Public's Role in Court-Based ADR', *Nevada Law Journal*, 2015, 15(3), p1687.

[49] Term used by Leny De Groot-Van Leeuwen referred to by Dory Reiling, op cit note 30.

[50] See for example P. Ekman, *Telling Lies* (WW Norton & Co, 2001); D. McNeill, *The Face* (Hamish Hamilton, 1998), in particular Chapter 5, 'The lie and the veil'.

[51] Cheryl Thomas and Hazel Genn, Understanding Tribunal Decision-Making: A Foundational Study, Nuffield Foundation, 2013, http://www.nuffieldfoundation.org/sites/default/files/files/NUFJ0000_Tribunal)decision_making_27_03_14.pdf

[52] Is Video Conferencing a Good Substitute for Face-to-face Meetings? Surinder Kahai, LeadingVirtually.com May 6th 2010. Accessed at http://www.leadingvirtually.com/is-video-conferencing-a-good-substitute-for-face-to-face-meetings/; Carlos Ferran and Stephanie Watts, Videoconferencing in the Field: A Heuristic Processing Model, Management *Science*, September, 2008, 54(9), 1565-1578. See the discussion in The Rt Hon Sir Brian Leveson, Review of Efficiency in Criminal Proceedings, 2015, Chapter 3, p.40 https://www.judiciary.gov.uk/wp-content/uploads/2015/01/review-of-efficiency-in-criminal-proceedings-20151.pdf

[53] Cheryl Thomas is currently conducting research into the impact of the digital courtroom and special measures on jury decision-making. The research is summarised at http://www.nuffieldfoundation.org/impact-special-measures-jury-decision-making

[54] See also issues raised and the need for theory driven research in an article for the American Psychological Association by Siri Carpenter, *Monitor* Staff October 2001, Vol 32, No. 9 Print version: page 30 http://www.apa.org/monitor/oct01/technology.aspx; A literature review conducted in 2008 relating to judges' understanding of digital forensic evidence found no relevant articles, see Gary Craig Kessler, *Judges' Awareness, Understanding and Application of Digital Evidence* (2010) PhD Thesis, Nova Southwestern University. I am grateful to Professor Cheryl Thomas for referring me to this reference.

[55] Ingrid Eagly, Remote Adjudication in Immigration Northwestern University Law Review Vol 109, No. 4 2015 http://escholarship.org/uc/item/5p1044zc. I am grateful to Natalie Byrom for drawing my attention to this study.

[56] Ibid Quote from judicial respondent at p934

[57] Judith Resnik, Bring Back Bentham: 'Open Courts,' 'Terror Trials,' and Public Sphere(s) (November 17, 2010). Law & Ethics of Human Rights, *Yale Law School, Public Law Working Paper No. 221*. Available at SSRN: http://ssrn.com/abstract=1710640 or http://dx.doi.org/10.2139/ssrn.1710640; See also William Twining 'Theories of Litigation, Procedure and Dispute Settlement', 56 MLR, 1993, 380, pp384-5.

[58] Tom R Tyler, 'Justice Sotomayor and the Jurisprudence of Procedural Justice', (2014), *Faculty Scholarship Series. Paper 4990*, http://digitalcommons.law.yale.edu/fss_papers/4990 ; see also Tyler, Tom R., "How Do the Courts Create Popular Legitimacy?: The Role of Establishing the Truth, Punishing Justly, And/Or Acting Through Just Procedures" (2014). Faculty Scholarship Series. Paper 4991, http://digitalcommons.law.yale.edu/fss_papers/4991

[59] Relating to or characteristic of the culture of computers, information technology, and virtual reality.

[60] Cheryl Thomas, Judicial Attitudes Survey 2016, Judicial Office of England and Wales, 2016, pp31-32 and 67 https://www.judiciary.gov.uk/wp-content/uploads/2017/02/jas-2016-england-wales-court-uk-tribunals-7-february-2017.pdf.

[61] Ibid p 72

[62] A few insights can be gleaned from Hazel Genn *The Attractiveness Of Senior Judicial Appointment to Highly Qualified Practitioners,* Report to the Judicial Executive Board, December 2008, https://www.ucl.ac.uk/laws/judicial-institute/files/The_Attractiveness_of_Senior_Judicial_Appointment_Research_Report.pdf

[63] Dory Reiling 'Beyond Court Digitalization With Online Dispute Resolution'*, International Journal for Court Administration,* Vol. 8 No. 2, May 2017, ISSN 2156-7964, http://www.iacajournal.org/   Discussing certain innovative online dispute resolution processes in the Netherlands and elsewhere Reiling points out that: *"Devising a procedure is one thing, whether it meets the needs of those who seek justice is a different matter. Whether or how digital access to court is an improvement that will enhance access to justice is one of the major themes in the access to justice debate."*