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Shaping the Future of International Dispute Resolution

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I. The Lessons of the Pandemic

History has taught us that crises, such as pandemics, are often catalysts of innovation. Researchers at the International Monetary Fund (IMF) found that 'pandemic events accelerate robot adoption, especially when the health impact is severe and is associated with a significant economic downturn'.[1] Gutenberg's labour-saving printing press (*c* 1440), for instance, has been linked to the decimation caused by the Black Death.[2] In our own time, the COVID-19 pandemic has forced us to find new ways to complete old tasks, so as to cope with, and limit, the spread of the virus. International dispute resolution has not been immune from this impetus for adaptation and change. In particular, the suspension of international travel and ordinary social interaction meant that the conventional way of resolving international disputes, in which everyone physically converges on one physical venue at one time, had to change. And change it did. Amongst other developments, the wide adoption of remote technology to conduct hearings is testament to that. As light emerges at the end of the COVID-19 tunnel, it is timely to ask ourselves whether we should go back to old practices – such as in-person hearings – when the pandemic blows over and (if so) to what extent. Since the pandemic has shown us that traditional dispute resolution processes are mutable, even within a very short span of time, it is worth reflecting upon whether they should be reinvented altogether.

This chapter is accordingly divided into two parts. Both were written with international commercial dispute resolution firmly in mind, especially the procedures of international commercial courts and international commercial arbitration. The first part (section II below) argues that the benefits of using technology to improve current arbitral procedures outweigh its costs. The second part (section III below) argues that

[1] TS Sedik and J Yoo, 'Pandemics and Automation: Will the Lost Jobs Come Back?' (2021) International Monetary Fund Working Paper No 2021/011.

[2] 'What history tells you about post-pandemic booms' *The Economist* (25 April 2021). The Black Death (1347–51) is estimated to have killed at least 40% of the population in Europe.

remote technology has greater potential to transform the process of arbitration and litigation. More particularly, section III will explore the idea of fully asynchronous hearings and commend it as a viable and important direction for future changes to international commercial dispute resolution.

II. COVID-19, Technology and Cross-Border Dispute Resolution Procedure

There can be little doubt that the COVID-19 pandemic has normalised the incorporation of technology into international dispute resolution. Notably, the pandemic has enlivened the debate about the effect of technology on civil procedure, and it has become apparent that technology can supplement and even enhance existing procedural innovations in many respects. We first examine procedural innovations which can be implemented to maximise efficiency irrespective of the use of technology. We will then consider the impact of technology on these procedural innovations, both positive and negative. We conclude that overall the adoption of technology adds value and reduces inefficiencies in cross-border dispute procedure and the benefits significantly outweigh the costs.

A. Innovations in Dispute Resolution Procedure

We first explore three procedural innovations which serve to optimise arbitration and litigation before international commercial (or similar) courts even without the use of technology. These are case management conferences (CMCs), the streamlining of document production, and the close management of expert evidence by the tribunal or court.

i. Case Management Conferences

CMCs are an important tool for a tribunal or court (the adjudicator) to proactively manage a case as it progresses. When used effectively, CMCs can significantly reduce inefficiencies in the procedure and substance of dispute resolution. Specifically, CMCs allow an adjudicator to have active oversight of the progression of the dispute resolution process. This is critical to conducting proceedings in the most efficient way possible, because rather than addressing problems with the parties' cases or evidence only at a substantive evidentiary or merits hearing (that is, a hearing where evidence is taken), the adjudicator can deal with such problems as soon as they are spotted.

Various types of CMC may be held at different stages of the life cycle of a dispute resolution process.

The first CMC. A first CMC is held immediately after the tribunal or court is constituted. It is a fundamental step for putting in place a broad procedural framework between the parties at the very beginning. The first CMC invariably culminates in a document known as Procedural Order No 1 (PO1), which sets out the foundational

procedural features of a case. It is customary, and advisable, for a first CMC to begin the coordination of the following procedural steps:

(1) the scheduling of the main evidentiary hearing;
(2) the scheduling of any interlocutory hearings;
(3) the identification of the parties' representatives;
(4) the identification of communication channels between the parties and the adjudicator; and
(5) formalising the process whereby the parties identify the differences between them and communicate their respective positions in respect of those differences to each other.

At the same time, it is obvious that not all procedural matters can, or should, be settled at a first CMC. For one thing, the course of a dispute may change. It is important to be flexible and to permit procedures to evolve as the case itself does. For another, milestone dates aside (see below), there are procedural issues that are best left until later, including document disclosure, expert evidence and matters related to the evidentiary hearing (such as the calling of live witnesses). These procedures need only be briefly outlined at the first CMC, for they can only be properly tailored to the circumstances of a dispute once a better understanding of the issues dividing the parties (and their respective positions on those issues) emerges.

Subject to this caveat, the efficiency benefits of a first CMC are obvious. By setting various 'milestone dates' for various stages in the dispute resolution process at the outset, the first CMC imposes discipline in the proceedings. The parties know where they stand at any given moment, insofar as having to complete specified steps by, in the absence of compelling reasons, immutable dates. This puts pressure on the parties to comply within the stipulated timelines such that the dispute resolution process can progress smoothly. Moreover, by settling the basic features of the process, the first CMC prevents disputes on these basic matters from arising later down the road. Given these benefits, it is unsurprising that arbitral institutions, tribunals, and courts have embraced the idea of first CMCs and PO1s in their rules.[3]

A CMC on issues. A CMC on issues allows a tribunal or court to discuss with the parties its understanding of the parties' cases. Accordingly, it is best convened after the first exchange of cases. A CMC on issues plays a critical role in streamlining the dispute resolution process. It assists the parties and the adjudicator in mutually understanding the key issues in the parties' cases and, when the parties are preparing subsequent submissions, focuses their time and energy on those issues that are most relevant and necessary for resolving the dispute. A CMC on issues may increase the efficiency of the dispute resolution process when coupled with 'episodic hearings'. Once a dispositive issue[4] is identified, the tribunal can hold an evidentiary hearing for that issue only. Depending on how the dispositive issue is resolved, it is possible for the rest of the

[3] See, eg, The London Court of International Arbitration (LCIA) Arbitration Rules (1 October 2020), Art 14.1, read with the LCIA Notes for Arbitrators, para 23; 2021 Arbitration Rules of the International Chambers of Commerce, art 24, supplemented by its ICC Arbitration Commission Report on Techniques for Controlling Time and Costs in Arbitration (2018), para 29.

[4] That is, an issue which if decided in one party's favour may be dispositive of the entire or nearly the entire dispute.

issues to fall away completely. The potential savings in costs and time can be enormous. A CMC on issues facilitates the organisation of episodic hearings by shedding light on what these dispositive issues may be.

An experts CMC. The process of adducing expert evidence, if uncontrolled by the adjudicator, can significantly drive up the costs and length of an arbitration. Without the tribunal's directions, irrelevant, duplicative or otherwise unhelpful expert reports may be prepared, at the expense of the economy of the process. An experts CMC allows the tribunal to maintain active oversight and management by directing the parties and the experts properly. The subject matter of these directions is elaborated upon in section II.A.iii below.

A pre-hearing CMC. It is common practice for the parties to attend a pre-hearing CMC before the main evidentiary hearing. The purpose is to settle the details of the hearing procedures to be adopted. A pre-hearing CMC should take place sufficiently in advance of the evidentiary hearing to allow for the adequate management of these procedural issues. As alluded to above, many of these issues cannot be dealt with at the first CMC, as the shape of the arbitration may still be obscure at that time, and there are variables which can only be fixed when the hearing date draws closer.

Common issues addressed in the pre-hearing CMC include:

(1) identification of the live issues that fall to be determined;
(2) venue and hearing facilities or virtual hearing platform and technological logistics;
(3) transcription;
(4) hearing timetable (including the time allocation between parties);
(5) witnesses to be called for cross-examination;
(6) interpretation;
(7) the appropriate electronic or hard copy format for hearing bundles; and
(8) the necessity of written closing submissions.

ii. Document Production

In complex commercial arbitrations and litigation, document production will often be extensive. It is therefore essential that the tribunal or court remains actively involved in the document production and disclosure process, so as to control the procedure and ensure that documents requested by a party are relevant, and that relevant documents are produced efficiently.

To organise information relating to document production, it is customary for arbitral tribunals and courts to direct the parties to prepare 'Redfern schedules' to record document requests, party submissions, objections and responses, and the decisions of the tribunal or court on each document or class of documents requested. In a Redfern schedule, each of these items is set out in successive columns, with the document requests separated into rows, allowing the tribunal to see at a glance all the parties' submissions on each set of document requests.

In the absence of sufficient prior communications among the parties and an adjudicator, the use of Redfern schedules can be challenging. That is because, when faced with a contested document request in a Redfern schedule, the adjudicator may find it difficult to resolve the contest without the parties' assistance on their understandings of the dispute. For example, where a document request is opposed on the ground of

irrelevance, it is often difficult for an adjudicator to decide if a document or class of documents is relevant without a detailed understanding of the issues in a dispute. To address this difficulty, a procedural innovation is to settle document production and disclosure issues by way of a short oral procedural hearing or video conference, called in a timely fashion ahead of the document production stage. By this process, the tribunal and the parties can work out, by reference to the nature of the dispute, what evidence is truly needed on which issues and why. Thereafter, when presented with a contested document request in a Redfern schedule, the adjudicator should be better placed to resolve the dispute on paper, without further need to convene a hearing with the parties. The whole document production procedure is thereby streamlined.

iii. Expert Evidence

The efficient management of expert evidence likewise requires proactive attention by an adjudicator at every stage of the dispute resolution process. Critically, the procedure should as much as possible limit the extent of extraneous variables left unsettled between the experts, particularly: (1) the issues on which to opine; (2) the materials to be relied upon; and (3) the methodology to be used. The best practice would be to start by identifying the disciplines in the dispute that need expert evidence, and to have the parties identify the types of experts that they wish to call for each discipline. This would be followed by the establishment within each discipline of a common list of questions, closely supervised by the adjudicator. The parties must then refrain from rushing to produce their expert reports. The latter should instead be deferred until all the factual evidence (documentary and witness) is available, so that as much as possible the experts can formulate their opinions on the basis of a common set of facts.

When it comes to the production of the expert reports, all of the experts within each discipline should be required to produce a joint expert report identifying areas of agreement and disagreement between them, before they produce individual expert reports focussing solely on their areas of disagreement. The experts might, where appropriate, be asked to produce reply expert reports based on the methodology or factual assumptions adopted by the experts of the opposing party. This would reveal what the differences in the experts' opinions can be attributed to, whether it be the use of a different method, factual assumption, or interpretation of the evidence. It would also allow the adjudicator to link the differences in opinion between the experts to the use of a particular method or fact, facilitating an understanding of what the expert opinion would be if the adjudicator ultimately accepts one method or set of facts. To adopt this procedure, the adjudicator would require active communication with the parties, whether by way of experts CMCs or other teleconferences. The rewards in terms of efficiency gained, however, are significant.

B. Positive Impact of Technology

As tribunals and litigants alike have adapted to the increasing presence of technology in dispute resolution proceedings and in everyday life, the use of technology has become prevalent. This naturalisation of technology in the dispute resolution process has resulted in a new approach to case management. Because tribunal engagement

before the evidentiary hearing becomes far easier with the aid of remote technology, the innovations in procedure outlined in the previous section require less effort to implement and are therefore more accessible to adjudicators. As a result, an adjudicator is able actively to engage with a case with relative ease, far in advance of the evidentiary hearing, even if the case involves international parties scattered across various time zones. For example, instead of leaving procedural issues for the main evidentiary hearing, parties and tribunals are more likely to resolve these preliminary issues in a timely manner due to the convenience of remote CMCs. As a consequence, preliminary issues can be resolved much more efficiently.

The ease of addressing issues as and when they arise means that the merits hearing of a proceeding is reserved for the key substantive issues in dispute between the parties. Consequently, the hearings in the later stages of a dispute resolution process are free from distractions arising from interlocutory procedural issues. This is possible only because of the increasing sophistication of remote technology. In the past, video streams were often choppy, the interface unsuitable for a legal hearing (let alone one with a sizeable group of attendees), and the overall experience was not user-friendly. Today's video-conferencing technologies have largely surpassed these difficulties, and thanks in no small part to COVID-19, are now ubiquitous. There is no doubt that the digital environment created by modern video-conferencing solutions is sufficiently stable and serviceable for a virtual hearing to be conducted in most locations set up for business use around the world.

Once the virtual format is adopted, the logistics of hearings and CMCs may be easily organised. For a start, there is no longer a need to travel to meet in one destination for a CMC or a hearing. Scheduling is also much easier when travel time is not a consideration. Participants can thus fit remote CMCs and procedural hearings into their schedules much more easily than if they are to take place physically. Moreover, for these reasons, CMCs and procedural hearings can be called with much shorter notice, enabling urgent issues to be dealt with more swiftly. Quite simply put, issues which were dealt with unsatisfactorily previously can now be ventilated and readily resolved with the aid of remote hearings.

A virtual hearing may be facilitated and supported by other technologies. For instance, electronic document management affords easy access to hundreds of thousands of documents in a remote setting. The use of shared databases or cloud-based repositories for the purpose of electronic file-sharing enables digital searches and categorisation and thus makes locating and transferring documents easy. This can be combined with the screen-sharing function of video-conferencing platforms, which allows participants of a remote CMC or hearing to view the documents under scrutiny conveniently and simultaneously. Another branch of facilitative technology concerns document production. Recent years have seen the development of predictive coding technology to assist in filtering and sorting documents in extensive document production exercises. In some jurisdictions, such technology has been judicially approved for use in discovery.[5]

[5] See, eg, *Da Silva Moore v Publicis Groupe & MLS Group* 287 FRD 182 (affirmed in *Moore v Publicis Groupe SA*, 2012 US Dist LEXIS 58742) in the US; *Pyrrho Investments Ltd v MWB Property Ltd* [2016] EWHC 256 (Ch), and *Brown v BCA Trading Ltd* [2016] EWHC 1464 (Ch) in England and Wales; *Irish Bank Resolution Corporation Ltd v Quinn* [2015] IEHC 175 in Ireland.

It is anticipated that a wider adoption of technology assisted document reviews will reduce time and costs (while also enhancing the accuracy)[6] of such exercises.

C. Limitations of Technology

At this juncture, it must be acknowledged that when technology is used to facilitate the handling of procedural matters, such as the ones just reviewed, this may give rise to challenges as well as benefits. Particularly acute amongst these potential challenges are cybersecurity and confidentiality breaches. Specifically, because the digital environment is more porous than a brick-and-mortar repository, files that are shared online may be accessible to hackers, as may private remote meetings. Organisers of such online endeavours must therefore pay attention to cybersecurity and confidentiality risks and mitigate them in a reasonable and proportionate manner.

A helpful reference is the detailed protocol issued by the International Council for Commercial Arbitration and the New York City Bar Association,[7] which contains high-level principles and concrete guidelines. The protocol is intended to be applied by an arbitral tribunal, in consultation with the parties, in light of the particular circumstances and risk profile of each individual arbitration.[8] It might be hoped that, with the assistance of frameworks of this kind (and ever-improving technology), the risks of cybersecurity and confidentiality breaches can be kept at a manageable and tolerable level.

Apart from the cybersecurity and confidentiality concerns associated with remote technology, one should also recognise that the remaining risks of using such technologies are considerably lower in the context of procedural matters as compared to evidentiary hearings. The most common objections to the use of remote technology revolve around the perceived difficulties with witness examination in a remote setting. These objections carry no force when remote technology is used simply to settle procedures rather than to take evidence. Nevertheless, even in an evidentiary hearing, the proposition that remote hearings are inferior to in-person hearings must be tested, rather than taken for granted. The oft-repeated maxim that 'justice must not only be done, but also be seen to be done' could be said to capture two notions of justice: substantive and procedural justice. Substantive justice is achieved when an adjudicator correctly applies the relevant law to the facts of a given case. Procedural justice, meanwhile, has many dimensions. As a rule, a procedurally just process should ensure that the parties are given an opportunity to state and defend their case (including an opportunity to test their opponent's case), and also that the tribunal is independent and impartial.

Against the touchstones of substantive and procedural justice, do remote evidentiary hearings fare worse than in-person hearings? In this regard, it may be helpful to

[6] HL Roitblatt, A Kershaw and P Oot, 'Document Categorization in Legal Electronic Discovery: Computer Classification vs. Manual Review' (2010) 61 *American Society for Information Science and Technology* 70, 79.

[7] 'ICCA–NYC Bar–CPR Protocol on Cybersecurity in International Arbitration (2020 Edition)' (The ICCA Reports No 6, 2019), available at www.cdn.arbitration-icca.org/s3fs-public/document/media_document/icca-nyc_bar-cpr_cybersecurity_protocol_for_international_arbitration_-_electronic_version.pdf.

[8] See Principles 6–12 of the protocol.

distinguish between evidentiary hearings featuring factual witnesses, and those featuring only expert witnesses. Ultimately, in the context of international arbitration or litigation, for both types of evidentiary hearing, there is little basis to suppose that remote technology would be any less effective in achieving substantive and procedural justice.

Turning first to hearings featuring factual witnesses, remote hearings are often criticised for undermining substantive justice, in that an untruthful account by a factual witness is more likely to be accepted than if evidence is taken in person. The argument can be broken down into several strands, none of which are convincing. First, it may be thought that a factual witness is more likely to lie in a remote setting. In the context of litigation in court, this may be because the 'majesty' or 'solemnity' of a courtroom setting has a psychological impact on witnesses,[9] making them more truthful than they would otherwise be. This plainly has no relevance in relation to arbitration, which, if conducted physically, takes place in a conference room. More fundamentally, the assumptions underlying this argument may be questioned. First, the solemnity of the proceedings do not derive solely from the trappings of the physical location in which they are held, but also from the participants' consciousness of the seriousness and importance of particular proceedings, and this can be brought home to the participants even in a virtual setting.[10] Secondly, it seems doubtful that a truly determined liar would change his or her mind due to the room they are in or the mode of communications. Thirdly, it may be thought that a factual witness who does lie is less likely to be caught in a remote hearing. The argument is that the demeanour of a liar is more conspicuous when observed in a physical setting. But experience has shown that demeanour is a treacherous guide to determining the truth: the honest witness may be nervous and incoherent, whereas the practised liar may look the tribunal in the eye and lie with confidence. As Sir Brian McKenna has aptly observed, in a passage subsequently endorsed by Lord Devlin:[11]

> I question whether the respect given to our findings of fact based on the demeanour of the witnesses is always deserved. I doubt my own ability, and sometimes that of other judges, to discern from a witness's demeanour, or the tone of his voice, whether he is telling the truth. He speaks hesitantly. Is that the mark of a cautious man, whose statements are for that reason to be respected, or is he taking time to fabricate? Is the emphatic witness putting on an act to deceive me, or is he speaking from the fullness of his heart, knowing that he is right? Is he likely to be more truthful if he looks me straight in the face than if he casts his eyes on the ground perhaps from shyness or a natural timidity? For my part I rely on these considerations as little as I can help.

[9] See *Re Chow Kam Fai ex parte Rambas Marketing Co LLC* [2004] 1 HKLRD 161 [28]; A Langdon QC, 'Inaugural Address by Andrew Langdon QC Chairman of the Bar 2017' (14 December 2016), available at www.barristermagazine.com/inaugural-address-by-andrew-langdon-qc-chairman-of-the-bar-2017-delivered-in-middle-temple-hall-london-on-14-december-2016.

[10] See, for example, E Rowden and A Wallace, 'Remote judging: the impact of video links on the image and the role of the judge' (2018) 14 *International Journal of Law in Context* 504, 516–18, discussing whether various participants exhibited less inhibited behaviour when appearing in court proceedings remotely; see also R Susskind, *Online Courts and the Future of Justice* (OUP, 2019) 208–10, questioning whether physical courtrooms are indeed more 'majestic' than online courts, and arguing that online courts can be designed to capture and convey the authority of conventional courts.

[11] B MacKenna, 'Discretion' (1974) 9 *Irish Jurist* 1, 10, words which Lord Devlin said he would 'adopt in their entirety' in P Devlin, *The Judge* (OUP, 1979) 63.

As a result, the primary basis of an evidentiary finding should surely rest upon contemporaneous documentation and inherent probabilities, rather than witnesses' recollections, at least in the context of commercial disputes. As Lord Leggatt cautioned:[12]

> [T]he best approach for a judge to adopt in the trial of a commercial case is, in my view, to place little if any reliance at all on witnesses' recollections of what was said in meetings and conversations, and to base factual findings on inferences drawn from the documentary evidence and known or probable facts … Above all, it is important to avoid the fallacy of supposing that, because a witness has confidence in his or her recollection and is honest, evidence based on that recollection provides any reliable guide to the truth.

The materiality of the nuances supposedly lost in testimony received through video-link should therefore not be overstated. Fourthly, it is often said that cross-examination is less effective in a remote setting. Yet, experience – including that of the authors – suggests that this has more to do with a lack of familiarity than any immanent feature of the remote environment. With time, practice and adaptations, cross-examination in a virtual hearing should be as effective as its physical counterpart.[13] For those reasons, the supposition that a remote evidentiary hearing would be less effective in doing substantive justice than an in-person hearing does not seem, to us, to withstand scrutiny.

What about procedural justice? Switching the hearing format from physical to remote certainly does not affect the independence and impartiality of the tribunal, but does it curtail the parties' right to be heard? Provided that basic technical capabilities (such as access to an adequate bandwidth and a functioning video-link) are not an issue, it is hard to imagine how that could be the case. The authors' experience during the pandemic has shown that, with some adaptations, virtual advocacy can be just as effective as in-person advocacy. As to the giving of evidence, witnesses can present their narrative, and be cross-examined, remotely, just as effectively as they could in a physical setting. The well-worn concerns of abusive practices undermining the integrity of the process, such as witness coaching, can also be easily prevented in a remote environment with the adoption of relatively simple measures. For instance, the tribunal may require, in addition to a video feed of the witness, a video feed showing a 360-degree view of the witness's surroundings, or allow the opposing party to have a representative present at the witness's location. As for hearings featuring only expert witnesses, the superiority of an in-person hearing is even less obvious. It is not obvious that a physical hearing is more conducive to the correct resolution of expert issues. Even more so than in the case of factual witnesses, the adjudicator would be interested in what an expert has to say, not how they say it.

D. Conclusion

In a nutshell, it is suggested that the increasingly widespread adoption of technology in international commercial dispute resolution is a positive development which greatly

[12] *Gestmin SGPS SA v Credit Suisse (UK) Limited* [2013] EWHC 3560 (Comm) [22].

[13] See W Miles, 'Remote Advocacy, Witness Preparation & Cross-Examination: Practical Tips & Challenges' in M Scherer, N Bassiri and MSA Wahab (eds), *International Arbitration and the COVID-19 Revolution* (Kluwer Law International, 2020).

enhances the efficiency of the proceedings, without compromising the quality of justice that it delivers. It would be to the benefit of all stakeholders in international dispute resolution for these technologies to remain in use post-pandemic.

III. Fully Asynchronous Dispute Resolution Proceedings

Professor Richard Susskind, a leading legal futurist and technologist, has drawn a distinction between 'automation' and 'transformation'. According to him, automation 'involves grafting new technology onto old working practices' by way of 'process improvement', whereas transformation takes place when technology 'displace[s] and revolutionize[s] conventional working habits' and 'blast[s] old approaches out of the water'.[14] Thus far, we have considered how technology has 'automated' international dispute resolution in the sense described by Professor Susskind, but we have yet to consider how international dispute resolution may be 'transformed' by technological innovations.

The rest of this chapter concerns transformation. Building on recent proposals for 'partially asynchronous' arbitration, we consider whether it is possible (and desirable) to introduce 'fully asynchronous' processes for international disputes. In what follows, the concept of 'asynchronicity' will first be unpacked. We will then describe the 'generic' and 'specialist' fully asynchronous litigation models which are either already in use or have been proposed for future development. The potential of fully asynchronous arbitration will then be examined. We conclude that the benefits of introducing a fully asynchronous process (in terms of both efficiency and access) outweigh its potential disadvantages, making it a viable and commendable direction for future reform.

A. The Concept of Asynchronicity

A process is 'asynchronous' if its progression does not require the simultaneous participation of its participants. There is no need for everyone to be available in the same place at the same time. In other words, sequential participation is at the conceptual core of an asynchronous process. A classic example is an email exchange: the sender and the recipient do not have to be simultaneously online for the exchange to take place. It is 'fully asynchronous', because at no point are the sender and the recipient required to be available at the same time. In contrast, traditional evidentiary hearings are 'fully synchronous', in that all the parties (or their representatives) and the adjudicator(s) are expected to be present at the same time, from the beginning (marked by some form of oral opening submissions), through the middle (the taking of evidence), and right up to the end (concluding with some form of oral closing submissions).

Between these two extremes are 'partially asynchronous' processes. As the name suggests, these are processes where one part is asynchronous and one part is synchronous. Strictly speaking, an asynchronous process does not necessarily require the support

[14] Susskind, *Online Courts* (2019) 34.

of modern technology. An exchange of letters is fully asynchronous. However, asynchronicity without the aid of technology would typically be too time-consuming and impractical to meet the needs of modern dispute resolution. As such, the discussion that follows is devoted to asynchronous dispute resolution assisted by remote technology.

B. Asynchronous Dispute Resolution

The idea that at least some parts of an arbitration may be held asynchronously has generated considerable interest during the COVID-19 pandemic. Professor Maxi Scherer has drawn attention to this possibility.[15] She has proposed that asynchronous participation could take the form of a video recording of counsel's opening submissions, which would be made available to the tribunal in advance of an evidentiary hearing, with the rest of the hearing taking place in a synchronous fashion. In Professor Scherer's view, a partially asynchronous model can mitigate the logistical and administrative problems arising from participants being in different time zones and having conflicting schedules. On the other hand, Professor Scherer does not consider the asynchronous format to be well suited to the taking of evidence, considering that present practice requires real-time interaction amongst witnesses, counsel, and the tribunal and most stakeholders in international arbitration consider this to be essential.

What, then, are the prospects of fully asynchronous arbitration? There has so far been little (if any) discussion on its potential. This shall be our focus in the remainder of this chapter. To set the scene, we first look at some of the models already in use or under scrutiny, in the context of domestic litigation.

i. Existing Models – Generic and Specialist

Broadly speaking, there are two types of fully asynchronous litigation which are either in use or being examined for their potential.

The first involves the use of generic technology not specifically designed for asynchronous dispute resolution, whereas the second involves the use of specialist online platforms. Examples of the first model include dispute resolution by email. In Singapore, in response to the disruptions caused by COVID-19, 'asynchronous court dispute resolution hearings by email' were introduced in March 2020 for smaller value claims relating to motor accidents, personal injury, and negligence.[16] Under this system, parties and the court would communicate by email on such matters as case management directions, the appointment of a single joint expert, the court's 'early neutral evaluation' of liability, and the quantum of the claim. The process resembles the paper disposal mechanism that is familiar to many jurisdictions. Importantly, this system contemplates that most

[15] See M Scherer, 'Asynchronous Hearings: The Next New Normal?' (*Kluwer Arbitration Blog*, 9 September 2020), available at www.arbitrationblog.kluwerarbitration.com/2020/09/09/asynchronous-hearings-the-next-new-normal.

[16] 'Asynchronous Court Dispute Resolution Hearings by Email (aCDR) for Case Management Lists at the State Courts Centre for Dispute Resolution (SCCDR)' (Singapore State Courts, Registrar's Circular No 2 of 2020, 5 March 2020).

or even all of the pre-trial process can take place asynchronously, with all case management directions being sought from and issued by the court through email, unless there is a special need for an in-person hearing.[17] This is a fully asynchronous process, since none of the parties have to be online at the same time for it to move forward. Moreover, it does not involve the use of any specialist platform. Rather, it exemplifies an application of generic technology (namely, email) in the context of online dispute resolution.

Contrast that with the second model of fully asynchronous litigation, which employs specialist online platforms for court users. An example is the 'asynchronous trial' system in use at the Hangzhou Internet Court of the People's Republic of China. To participate in such a trial, litigants must log on to an online platform designed and developed specifically for that purpose.[18] The trial proper comprises three stages: (1) questioning and answering; (2) debating; and (3) closing statements.[19] Submissions may be in written or audio form. Stage (1) is divided into two sessions. In the first, questioning session, participants (including the judge) may ask questions as they wish, and parties can choose whether to answer immediately. In the answering session, the parties can only give answers to the questions raised. In stage (2), parties are expected to express their opinions on the answers given. Lastly, in stage (3), the parties are to close their case. This is a fully asynchronous process, since the parties do not have to be simultaneously online to participate: Party A may leave a question on the platform for Party B to answer without Party B's virtual presence at the same time. Likewise, the court can read or replay the parties' submissions at its leisure. It was designed to be an asynchronous process from start to finish, with no feature catering for a real-time exchange of arguments or evidence at any stage.

A similar 'online court' process has attracted interest in England and Wales. In 2016, Sir Ernest Ryder, then Senior President of Tribunals, described a process known as 'online continuous hearings' which was being trialled by the Social Entitlement Chamber of the First-Tier Tribunal, in which 'all participants are able to iterate and comment upon the basic case papers online, over a reasonable window of time, so that the issues in dispute can be clarified and explored'.[20] Meanwhile, 'the judge will take an inquisitorial and problem-solving approach, guiding the parties to explain and understand their respective positions'.[21] A similar idea was picked up later on by Sir Geoffrey Vos, then Chancellor of the High Court, who described its potential application to a much broader range of commercial cases before the English courts. As he imagined the proceedings, participants can log on to an online platform when they have the time to do so within a time window and make their submissions online. Questions can then be asked by the judge online and responded to by the parties online. Such an 'iterative

[17] ibid, paras 18, 21.

[18] See A Mingay, 'Size matters: Alibaba shapes China's first 'Court of the Internet'' (Mercator Institute for China Studies, 17 October 2019), available at www.merics.org/en/analysis/size-matters-alibaba-shapes-chinas-first-court-internet.

[19] 《涉网案件异步审理规程（试行）》(PRC), aArts 6–8; see also G Du and M Yu, 'A Close Look at Hangzhou Internet Court: Inside China's Internet Courts Series -06' *China Justice Observer* (3 November 2019), available at www.chinajusticeobserver.com/a/a-close-look-at-hangzhou-internet-court.

[20] E Ryder, 'The Modernisation of Access to Justice in Times of Austerity' (5th Annual Ryder Lecture, 3 March 2016), paras 28–29.

[21] ibid para 30.

online process' could be as convenient as texting on a phone.[22] Importantly, judges would and should have a much greater role to play in controlling the conduct of the case than in a traditional trial, 'asking questions, directing evidence and resolving cases stage by stage'.[23] Sir Geoffrey expressed the hope that 'oral evidence at a synchronous hearing could become the exception rather than the rule'.[24]

ii. Fully Asynchronous International Dispute Resolution – Potential and Challenges

To what extent can, and should, fully asynchronous processes (whether generic or specialist) be adopted in international commercial dispute resolution (whether litigation or arbitration)? It is suggested that such reforms are possible, and that, in the light of its benefits and potential, asynchronous proceedings should be seriously considered as the next transformative step in cross-border dispute resolution.

The 'can' question divides into two issues. First, can the parties to a dispute agree to have their differences resolved by a fully asynchronous process? This is relatively straightforward. The arbitral process is determined by the parties. If parties agree that their dispute is to be determined entirely on the basis of exchanges of emails, that would be decisive. Secondly, do we have the technology for a fully asynchronous arbitration to take place? The answer is obvious for the generic model, since, *ex hypothesi*, such a model uses technology already in widespread use for other purposes. As for the specialist model, although there is yet to be an online platform dedicated to fully asynchronous arbitration, it seems that the foundational technology is already available. This may be evidenced by the platform currently deployed by the Hangzhou Internet Court,[25] and also by other existing platforms for domestic litigation, such as Matterhorn – an American online dispute resolution platform allowing litigants to communicate asynchronously with the judge and other participants in the case[26] – and the 'eCourtroom' used in the Federal Court of Australia for handling simple applications and the giving of directions asynchronously.[27] The technologies used to develop these litigation platforms would be capable of being used in arbitration and litigation, since the core functional requirement (namely, sequential participation among the parties and the adjudicator) is the same in both contexts.

The 'should' question is more difficult. To properly answer it, it is necessary to weigh the pros and cons of fully asynchronous arbitration for international disputes. The benefits of fully asynchronous arbitration are obvious.

[22] G Vos, 'Debate on how the adoption of new technology can be accelerated to improve the efficiency of the justice system' (20 June 2018), paras 16, 22.

[23] ibid para 22.

[24] ibid.

[25] See n 18 above.

[26] See Matterhorn's official website at www.getmatterhorn.com. According to the website, Matterhorn is currently in use in over 150 courts and 20 states in the United States.

[27] See Federal Court of Australia, 'eCourtroom – Online Courtroom for Registered Users', available at www.fedcourt.gov.au/online-services/ecourtroom.

First, by allowing participants to engage the arbitral process sequentially and at their leisure, it saves time, reduces costs and eliminates the inconvenience arising from time zone differences. Synchronous arbitration requires all participants to be present at the same time. Effectively, it locks up a fixed period of all the participants' time, even though the information that is exchanged during the hearing can for the most part just as easily be picked up without simultaneous participation. This generates wasted costs, both in terms of time and money. By contrast, fully asynchronous arbitration allows everybody to access the arbitral process as and when they see fit. The potential savings on the time and costs of the arbitral process may be huge. In Sir Geoffrey Vos' words, 'many cases and some aspects of the more complex cases' can be resolved asynchronously 'without paying for partners in law firms, assistant solicitors and barristers all to sit, sometimes for hours or days on end, listening to material they can pick up online in far less time'.[28] Moreover, as with remote hearings, fully asynchronous hearings conducted through remote technology obviate the need for international travel, saving time and costs. In addition, because fully asynchronous arbitration does away with the need for everyone to be available at the same time for any part of the proceedings, time zone differences would no longer pose a problem.

Second, and more importantly, because of these efficiency gains, fully asynchronous arbitration may significantly promote access to adjudication by less economically resourceful entities, such as low-income individuals and small and medium-sized enterprises (SMEs). The extent to which a fully asynchronous process may facilitate their access to arbitration may be analysed from a temporal and a material dimension. Temporally, because parties are relieved of the need to pre-schedule blocks of time to attend hearings, they are more able, and likely, to engage in the dispute resolution process. The investment of time is a significant consideration for individuals whose commitments (such as work and caregiving) would be disrupted by the current 'lock-up' period of legal proceedings.

For instance, in a survey conducted in Nigeria in 2018, a lack of time was cited as the fourth most common reason for not commencing proceedings in the face of a legal dispute.[29] This factor disproportionately affects individuals and smaller enterprises, since, compared to large entities, they have a much smaller margin in which to rearrange their commitments to meet the demands of traditional dispute resolution. Fully asynchronous arbitration can therefore prove attractive to individuals and SMEs, for the time investment required is much lower. Materially, the reduction in costs resulting from fully asynchronous arbitration would lower the financial barrier to cross-border dispute resolution.

Rightly or wrongly, international arbitration or litigation has a reputation of being serviceable only for the rich. For instance, in a recent English family law decision, it was observed that 'There is a common misconception that the use of arbitration, as an alternative to the court process in financial remedy cases, is the purview only of the rich who seek privacy away from the courts and the eyes of the media'.[30] According to the CIArb

[28] Vos, 'Debate' (2018) para 16.

[29] The Hague Institute for Innovation of Law, 'Justice Needs and Satisfaction in Nigeria 2018' (2018) 98, available at www.hiil.org/wp-content/uploads/2018/07/HiiL-Nigeria-JNS-report-web.pdf.

[30] *Haley v Haley* [2020] EWCA Civ 1369, [2021] 2 WLR 357 [5] (King LJ).

Costs of International Arbitration Survey 2011, the average costs incurred by each party in international arbitration was around £1.5 million, most of which was lawyers' fees.[31] By reducing lawyers' hours on a case, a fully asynchronous process has the potential of dramatically lowering such costs, making international arbitration more accessible.

Promotion of access to international dispute resolution is a facet of the promotion of access to justice, and, as such, is a deserving and valuable goal. This is all the more so in the wake of COVID-19, which has generated a large volume of disputes in need of a cost-effective and speedy forum for their determination.[32] Setting aside the question of whether organisations (such as arbitral institutions or international commercial courts) have a duty to contribute to the achievement of such goals, there are self-serving reasons for such institutions to make themselves accessible to the less economically well resourced. For one thing, this demographic represents an enormous 'latent legal market'.[33] For another, providing a cost-effective process would allow a dispute resolution system of choice. As Sir Rupert Jackson observed, 'Every dispute resolution system needs to adapt to the changing needs of society and the rapid advances of technology. That means an almost constant process of procedural reform.'[34] In this regard, 'Competition between dispute resolution systems or institutions is a driver of improvement'.[35] If the arbitral process can harness the efficiency benefits of asynchronicity while other dispute resolution processes lag behind, it would win that 'competition' and vice versa. Accordingly, for self-interested reasons, dispute resolution service providers should look into the potential of fully asynchronous proceedings.

So much for the benefits of fully asynchronous hearings. What are the disadvantages?

Ethically, it may be said that a fully asynchronous process would on the contrary widen the gap in access to justice between the haves and have-nots, on the basis that fully asynchronous hearings would essentially be 'economy class justice'[36] for the economically disadvantaged, as Professor Susskind has dubbed this argument, while the wealthy alone would be able to afford and choose the traditional synchronous process. Underlying this claim is the assumption that a synchronous process is superior to its asynchronous counterpart, and it is therefore this underlying argument that needs to be unpacked.

Is it fair to assume that, substantively, fully asynchronous arbitration would undermine the rectitude of decisions? So far as submissions are concerned, it is hard to imagine why they would be more helpful when delivered in real time than when made asynchronously. The greatest value of a synchronous hearing is that the tribunal can raise questions on the arguments being put before it. This allows the tribunal's specific queries to be clarified there and then. In an asynchronous process, the tribunal can still seek clarifications and assistance from legal representatives, just as it could in a synchronous hearing, albeit with some degree of delay. Indeed, submissions given

[31] Chartered Institute of Arbitrators, CIArb Costs of International Arbitration Survey 2011 (2011) 13.

[32] See *Haley v Haley* [2020] EWCA Civ 1369, [2021] 2 WLR 357 [5] (King LJ).

[33] R Susskind, *The Future of Law: Facing the Challenges of Information Technology* (Clarendon Press, 1996) 27.

[34] R Jackson, 'Arbitration: Is it still fit for purpose?' (Keynote Speech at the 11th International Conference on Construction Law and Alternative Dispute Resolution, 23 May 2018) para 4.1.

[35] ibid para 4.7.

[36] Susskind, *The Future of Law* (1996) 187.

asynchronously may even be more helpful because legal representatives would not be pressed to give an immediate response. They would have the time to produce a thoughtful, organised and coherent answer. For that reason, while synchronous remote hearings have been criticised by some for providing tribunals with a less thorough understanding of the case than in-person hearings,[37] the opposite might be true of asynchronous hearings. They may in fact improve the tribunal's understanding of the case.

As for matters of factual evidence, it may be thought that by ridding dispute resolution of an exchange of *viva voce* evidence, it becomes much harder to assess the credibility of witnesses in a fully asynchronous process. In such a process, it would be impossible to gauge witnesses' real-time demeanour, such as their immediate reaction to a question. However, as already explained, the demeanour of witnesses is an unreliable guide of their honesty and, at least in the context of commercial disputes, rarely would the resolution of factual issues turn on the witnesses' recollection of what happened. A more powerful concern is that, because a fully asynchronous process affords witnesses a time gap before answering questions, there is a greater risk of witness coaching and outright fabrication. That said, the value of a cross-examination technique that relies mainly on the element of surprise or the gradual wearing down of a witness over the course of a continuous session is questionable. As Toby Landau QC has put it: 'Cross-examination subjects witnesses to a process that can be highly artificial, high pressure, divorced from real life, and – on occasion – culturally inappropriate. It may reward resilience, but as a process may not be optim[al] for adducing genuine evidence'.[38] To this it may be added that much of the effort expended on this style of cross-examination yields little practical benefits, as Wendy Miles QC has observed:[39]

> Often all successful cross-examination achieves is a confirmation that actual recollection is patchier that what lawyers compose in witness statements. But if tribunals were to accept that as their starting premise, perhaps we could spend a whole lot less time and energy trying to prove it to them in every single instance.

When focused on more productive practices, cross-examination in an asynchronous setting is not necessarily lacking in efficacy. In these premises, a general statement that fully asynchronous arbitration provides 'second rate' justice does not seem to rest on solid grounds.

A different critique may be that fully asynchronous hearings have limited utility, in that they would be suitable only for small-value claims of the simplest kind. There appears to be a notion among even the most fervent of legal technologists that asynchronous dispute resolution of the kind described above should be confined to simpler claims of a relatively modest value. Professor Susskind, for instance, has suggested that the value of a case, the complexity of its legal and fact patterns, and the types of legal problem at issue, are relevant factors for assessing whether asynchronous adjudication

[37] G Born, A Day and H Virjee, 'Empirical Study of Experiences with Remote Hearings: A Survey of Users' Views' in M Scherer, N Bassiri, MSA Wahab (eds), *International Arbitration and the COVID-19 Revolution* (Kluwer Law International, 2020) 149.

[38] T Landau, 'Tainted Memories: Exposing the Fallacy of Witness Evidence in International Arbitration' (The Kaplan Lecture, 17 November 2010) 12–13, available at www.neil-kaplan.com/s/2010-Toby-Landau-QC-Tainted-MemoriesExposing-the-Fallacy-of-Witness-Evidence-in-International-Arbitr.pdf.

[39] Miles, 'Remote Advocacy' (2020) 128.

is or is not suitable for the disposal of the case.[40] However, it may be questioned whether such constraints are justified. The claim value is important because it would determine what would be a proportionate amount of resources to be invested in resolving the claim, and because it is a fairly useful proxy for the claim's factual and legal complexity.

This does not, however, preclude the use of an asynchronous process for high-value claims. Instead, as Professor Susskind has also observed, a threshold for claim value is often set for asynchronous dispute resolution, simply because such methods are commonly explored as solutions to the problem of disproportionate expenses being incurred in resolving smaller claims.[41] It is not the case that higher-value claims are unsuitable for asynchronous judging. Surely, the more cost-effective resolution of higher-value claims is also a salutary aim. The second reason is tied to the complexity of the underlying claim. Is a legally complicated dispute unsuitable for wholly asynchronous arbitration? For the reasons explored above, it is difficult to see why. As explained, the quality of legal submissions may well be enhanced in an asynchronous process. What about a factually complicated dispute? A dispute may be factually complicated because, quantitatively, a great number of factual issues are involved, or because, qualitatively, the factual issue is finely balanced. Concerns over quantitative factual complexity may be placed in perspective by the following remarks by Sir Geoffrey Vos:[42]

> [T]here are many cases where parts of the trial process are costly and unnecessary … Why do we need days of evidence, when in reality there are very rarely more than a handful of substantive factual disputes, and even those are often borne of misunderstanding or mistrust rather than substantive disagreement as to what has actually occurred? In many cases, a good proportion of the factual disputes are irrelevant to the outcome, and could be avoided altogether if the matter had been considered in sufficient detail at an earlier stage.

Thus, experience suggests that it is rare for a case to involve so many factual issues that asynchronous determination is unsuitable. For the rare case, a synchronous hearing may possibly well be more cost-effective and practical. But that would be the exception, rather than the rule. As for concerns over qualitative issues, it does not seem that having a real-time hearing would make a difference. Although it is impossible to gauge a witness's real-time demeanour in an asynchronous process, it is an unhelpful indicator of veracity, as we have explained. If the tribunal has to split hairs in order to rule on a factual issue, it is much more likely that it would do so on the basis of inherent probabilities, rather than the eye contact or verbal delivery of a witness. Inherent probabilities are the same whether or not a hearing is synchronous. It follows that, when it comes to finely balanced factual issues, an asynchronous hearing is probably just as good as its synchronous counterpart. For these reasons, it seems that, save possibly in exceptional circumstances, fully asynchronous arbitration can resolve claims both large and small, and both simple and complex.

Lastly, it may be asserted that technology-assisted processes of the kind we have been considering are unhelpful for promoting access to justice. That is because the intended beneficiaries, who are relatively economically disadvantaged, are less likely

[40] Susskind (n 10) 149–50.
[41] ibid.
[42] Vos (n 22) para 21.

to have access to the Internet, or have the requisite computer literacy, for engaging in the new processes. In other words, a new barrier (technology) would replace the old ones (time and financial costs), taking us back to square one. Although this is a valid concern, it does not appear to be a cogent one when one considers that those unable to access online dispute resolution for the foregoing reasons are unlikely to have been able to access traditional forms of international dispute resolution either. Statistics suggest that the potential reach of online dispute resolution is already massive. In 2021, 60 per cent of the world population are Internet users, and 54 per cent are active social media users.[43] Provided that there is sufficient education (and that the design is user-friendly), these persons should have no problem using either the generic or specialist model of fully asynchronous arbitration. Thus, technology-driven access reforms in international arbitration would be both progressive and effective.

There nevertheless remains a separate question as to whether *parties* would see fully asynchronous arbitration as inferior to a synchronous process. It is plausible that parties may prefer a traditional hearing, whether physical or remote, because of its deeper interpersonal elements. Research suggests that parties place higher value on procedural justice as informed by interpersonal connections than the quality of decision-making.[44] A traditional hearing offers real-time face-to-face interactions, whereas a fully asynchronous process does not. On this basis, the former may be considered a superior interpersonal experience. However, this preference may change over time. As pointed out by Professor Susskind, recent anecdotal accounts in the field of psychotherapy have indicated that the younger generation prefers texting to voice or video-based communications.[45] It is entirely possible that the 'selfie generation' will prefer fully asynchronous hearings, which can be conducted entirely by text, in contrast to traditional hearings.

A fully asynchronous process, whether of the generic or specialist kind, is quicker, cheaper and more convenient, without compromising the quality of decisions (at least for commercial disputes). It gives the parties the full opportunity to comment on the case materials as the case progresses. The process, as conceived by some, would be more intelligible and streamlined, for the adjudicator is expected to 'take an inquisitorial and problem-solving approach, guiding the parties to explain and understand their respective positions',[46] and to be 'totally *au fait* with the issues and the stage that her online "trial" had reached and what she truly needed to know to resolve the issues that really divided the parties in the case'.[47] Recent research shows that, by removing the need for face-to-face interactions, fully asynchronous dispute resolution may make adjudication fairer, because 'judges need not be exposed to parties' group-based identity traits' which may become a source of bias.[48]

[43] S Kemp, "Digital 2021: Global Overview Report" (*DataReportal*, 27 January 2021), available at www.datareportal.com/reports/digital-2021-global-overview-report.

[44] See generally TR Tyler and SL Blader, 'The Group Engagement Model: Procedural Justice, Social Identity, and Cooperative Behavior' (2003) 7 *Personality and Social Psychology Review* 349, 357.

[45] Susskind (n 10) 213.

[46] Ryder, 'Modernisation' (2016) para 30.

[47] Vos (n 22) para 22.

[48] A Mentowvich, JJ Prescott, and O Rabinovich-Einy, 'Are Litigation Outcome Disparities Inevitable? Courts, Technology, and the Future of Impartiality' (2020) 71 *Alabama Law Rev* 893, 975.

With these considerations in mind, it is difficult to see why informed parties would see fully asynchronous arbitration as an inferior offering. The 'economy class justice' argument is unconvincing. This would, of course, be a radical and inconvenient change for lawyers who are trained under, and invested in, the traditional model. But it must be the interests of the users, rather than lawyers and adjudicators, which are paramount. All in all, it is suggested that fully asynchronous proceedings are a promising innovation which could improve the efficiency of, and access to, justice in commercial cases. This proposal is not without its downsides, but they do not appear to outweigh its benefits. It is hoped that, in the future, work would be done on designing specialist platforms for fully asynchronous proceedings.

IV. Overall Conclusion

Drawing all the threads together, technology has been, and will continue to be, beneficial to the reform of international arbitral processes. Not only does it greatly enhance the efficiency and cost-effectiveness of international arbitration, but it also has the potential of facilitating access thereto. In *The Plague*, Albert Camus wrote, 'All that a man could win in the game of plague and life was knowledge and memory'.[49] COVID-19 has endowed us with knowledge and experience as respects the use of technology to resolve legal disputes. Our next task is to avail of what we have learned to improve the system of international dispute resolution further.

[49] A Camus, *The Plague* (Penguin, 2015) 224.