

Construction, Engineering and Energy Law Journal

2022

***33** The Present and the Future of Construction Arbitration: Virtual, In-person and HybridDr. Tariq Mahmood¹⁹Hon. Barry Leon²⁰

Introduction

***34**

The global Covid-19 pandemic has changed the way we operate in international arbitration – likely forever. This is as true for construction arbitration as for other areas in which arbitration is a common method for dispute resolution.

Today, virtual hearings have become the norm. Most international arbitration practitioners believe that virtual and hybrid proceedings will be a part of international arbitration on an ongoing basis, although they may differ on the extent to which this will be the case. Some argue that remote hearings are second best. Connection difficulties, lagging, difficulties showing documents to witnesses, the endless cries of “you’re on mute!” are all inimical to proceedings that should be uninterrupted. Others argue that remote and hybrid hearing have many advantages that outweigh the disadvantages, including increased efficiency and significant cost savings, and of course significant environmental benefits (including from far less paper and far less travel, resulting in “greener” arbitrations).

Virtual hearings have become the norm in international arbitration, not only for case management and interim hearings, but for substantive merits hearings. This has been so even in large, multi-party, multi-jurisdictional, multi-time zone international arbitrations.

The change to virtual has resulted in a host of issues being faced by parties, counsel, witnesses (fact and expert) and arbitral tribunals. It is now established that online hearings are more tiring and less satisfactory for some participants. The challenges of witnesses being cross-examined virtually has been most prominent, with an added concern in some cases (real or imagined) of potentially tainted evidence due to a “cheating” witness that some believe technology and procedural safeguards cannot overcome. Yet, experience has shown that these risks appear to be discussed more than they occur, and that usually they can be managed and reduced by technology and procedural ***35** safeguards, and the involvement of an experienced independent virtual hearings provider (which should be engaged for almost all, if not all, international arbitrations).²¹

Construction arbitrations' common features tend to intensify some of the challenges and new ways of doing things arising from the shift to virtual hearings. Among those features are that construction arbitrations are document-intensive, often have a large number of issues in dispute, rely on expert evidence in various ways, may involve numerous fact witnesses, and may have challenging time zone issues. Therefore, as much if not more so than in other types of disputes, having a good facility to handle virtual and hybrid hearings is particularly important for all participants – arbitrators, counsel, experts and fact witnesses.

Prior to the onset of Covid-19, “The Seoul Protocol on Video Conferencing in International Arbitration” was developed. It proved helpful for virtual proceedings. After the pandemic began, a further protocol was developed, the “Africa Academy Protocol on Virtual Hearings in Africa”. These protocols were followed by the Chartered Institute of Arbitrators' (“CIArb's”) ‘Guidance Note on Remote Dispute Resolution Proceedings’ and recently, the Abu Dhabi Global Market Arbitration Centre (“ADGMAC”) Protocol for Remote Hearings (2021). All these have been useful resources to assist virtual proceedings to carry on effectively and reduce the risk of virtual

hearings leading to challenges to arbitral awards or refusals to enforce arbitral awards.

In this article we explore, among other things, how these soft law instruments have been successful in increasing the effectiveness of virtual hearings and we provide practical suggestions for effective virtual hearings.

*36

Seoul Protocol

The “Seoul Protocol on Video Conferencing in International Arbitration” made an important contribution to the ability of arbitrations to continue virtually, and to do so effectively and efficiently. The Seoul Protocol was developed for sophisticated arbitrations using high-end technology, but it nonetheless provides useful guidelines even for those attempting to self-manage small-scale arbitrations on Zoom, Skype, or any other video conferencing platform.

The primary focus of the Seoul Protocol was witness testimony, rather than fully online proceedings. But it has been sufficiently adapted to this broader purpose that it is also useful in the fully virtual context.

One of the risks of a virtual hearing is a challenge to the award on the grounds that a virtual hearing, or technical difficulties that occurred during it, or an “inequality of technology arms” between the precluded a party from having an adequate opportunity to present its case had undermined the integrity of the arbitral process. There is, of course, also a risk that online proceedings intended to be confidential will be accessed by third parties, who then use the information gained for their own purposes.²²

While these risks can never be eliminated, through the use of the protocol and by engaging experienced independent virtual hearing providers, parties, arbitrators and counsel will minimise those risks.²³

Africa Protocol (2020)

*37

The Africa Protocol distinguishes itself from the other protocols by both the detailed guidance it provides and by its recognition that not all participants in virtual hearings will have access to the high technology and reliable internet that is expected in international arbitration.

The guidance that this protocol offers is practical. While experienced participants may consider that its detail goes beyond what is required to address the need to conduct an arbitration virtually, the additional details are an admirable recognition of the reality that many parties and lawyers, particularly in developing jurisdictions, have little experience with arbitration, particularly international arbitration, and will now see domestic arbitration as an alternative to ongoing and increased delays in national courts, and international arbitration as essential to securing commercial justice.²⁴

Most notably the protocol adopts the mechanism of a “Pre-Virtual Hearing Agreement”, aimed at addressing the risk that a party may later challenge the outcome of the arbitration on the ground that the hearing was virtual. The protocol accomplishes this by having all participants explicitly agree in advance for the arbitration to proceed in virtually:

“To dispense with frivolous challenges to arbitral awards rendered in cases where virtual hearings were held, where there is no agreement between parties on the use of virtual hearings and there are no provisions expressly regulating such hearings under the applicable procedural rules governing the arbitration, parties shall, prior to the hearing and to the extent necessary, enter into a Pre-Virtual Hearing Agreement to expressly consent to the use of virtual hearings as per the draft in Annex II of this Protocol. In the alternative, the Tribunal shall, where appropriate and after due consultation with the parties, direct that the evidentiary hearing be conducted virtually as per the *38 draft procedural order in Annex IV of this Protocol.” (Paragraph 2.3.1)

Given the reality that in many jurisdictions around the world, courts lack both familiarity with

arbitration and trust in the suitability of virtual proceedings, the incorporation into the protocol of the “Pre-Virtual Hearing Agreement” is a decision for which many parties will ultimately be grateful.²⁵

CI Arb – Guidance Note on “Remote Dispute Resolution Proceedings” (“RDRP”) (2020)

The Chartered Institute of Arbitrators issued its RDRP Guidance Note on 8 April 2020. The Guidance Note contains a guide for conducting proceedings in any circumstance where parties to the dispute are unable to meet physically.²⁶

The RDRP Guidance Note comprises of three parts: Part 1 deals with technology and logistical matters; Part 2 deals with legal matters and procedural arrangements; and Part 3 deals with institutional and ad hoc proceedings.

Further, the RDRP Guidance Note provides a 19-point preliminary checklist which parties should consider prior to conducting virtual dispute resolution proceedings.

Abu Dhabi Global Market Arbitration Centre Protocol for Remote Hearings (2021)²⁷

The ADGMAC introduced its Protocol for Remote Hearings in June 2021. The main features of the Protocol were designed to cover merits hearings in which fact and expert witness evidence are heard and oral submissions are made, but it ^{*39} can also be adapted for case management conferences where procedural and organisational matters are discussed.

In Section A, the Protocol provides that the parties shall agree to conduct remote hearing in a manner that: (a) is consistent with the principles of fairness, cooperation and good faith; (b) ensures the enforceability of any resultant arbitral award; and (c) ensures confidentiality.

In Section B, the Protocol clarifies that the functional requirements for a remote hearing must comprise: (a) a video-conferencing system; (b) an electronic document management system; and (c) real-time transcript.

In Section C, the Protocol makes a distinction between “Speakers” and “Attendees”. It clarifies that Speakers are the participants who can be both seen and heard by all other participants on any given day. The Protocol also affords the parties the right to object to any of the participants within 24 hours of the exchange of the list of participants.

In Section J, the Protocol addresses situations in which several participants attend the remote hearing from the same physical room. The Protocol allows semi-remote hearing arrangements but encourages the parties to agree on such semi-remote configuration in advance of the remote hearing. Notwithstanding the foregoing, the Protocol recommends avoiding the following semi-remote arrangements.

Section L of the Protocol provides that fact witnesses must give an affirmation before giving their testimony in accordance with any applicable laws. The Protocol encourages the parties to arrange for a hearing invigilator to attend at the same premises as the fact or expert witness, to ensure the integrity of the examination (e.g., ensuring there is no person or recording-device present that was not approved or agreed).

^{*40}

Alternatively, if the attendance of an invigilator is not possible, the Protocol requires witnesses to testify alone in a room containing a camera which provides a clear and reasonably complete view of the witness and the room he or she is in. The Protocol also provides that each fact witness must confirm the following at the start of his or her evidence:

1. The witness can see and hear the other Speakers clearly;
2. No other person other than those persons agreed by the Parties, or approved by the Tribunal, is in, or will enter, the room in which the witness is providing evidence;
3. The witness does not have access to hard copy documentation other than his or her witness

statement(s); and

4. The witness will not and has no means to communicate with any person in any way while the witness's examination is in progress, other than through the approved Platforms.

Section I of the Protocol confirms that parties must take all steps necessary to ensure the confidentiality of the proceedings. It obliges parties to notify the Tribunal of any laws applicable at any participant's location that may present an obstacle or issue of legal compliance with privacy, confidentiality, data protection and security requirements. The Protocol encourages the parties to agree on a more detailed "cyber-protocol" prior to the remote hearing to ensure compliance with any applicable regulations and to protect the confidentiality of electronic communications within the arbitration proceedings and any platforms used for the remote hearing.

Section T of the Protocol encourages the parties to agree in writing that remote video-conferencing constitutes a fair and acceptable means of holding hearings and taking of evidence by the Tribunal pursuant to the arbitration agreement and *41 the applicable law and rules. The Protocol also encourages parties to agree that the conduct of the remote hearing is consistent and compliant with the law of the seat, and that no party will seek to set aside or oppose the recognition or enforcement of any resultant arbitral award on the basis that the arbitral hearing was conducted by remote video-conferencing.

John Gaffney states that

"[p]rior to the unwelcome arrival of the pandemic in early 2020, the use of technology was not novel in international arbitration. Parties and arbitrators had been accustomed to using modern means of communication to, for example, hold case management conferences, and utilise hearing room technologies such as real-time electronic transcripts. International arbitration had thus already shifted into a more technologically-oriented culture, albeit maintaining for the large part traditional in-person hearings."

The pandemic continues to shift the way hearings in international arbitration are conducted, such that virtual hearings become routine. As a result, the Protocol was well-timed and helps complement ongoing efforts by arbitral tribunals and parties to tailor arrangements for remote hearings in procedural orders, protocols and/or agreements.

He further suggests the addition of the following three elements that would encourage the efficiency and effectiveness in the conduct of remote hearings, namely:

- Guidelines requiring that each participant shall endeavour to: (a) identify a lead speaker for each party, (b) speak one at a time and not while another participant is speaking, except if required to interpose an objection to a question asked or to alert of technical difficulties, (c) avoid *42 using equipment that interferes with connectivity, (d) mute microphones when not in use to minimise audio disruptions, (e) eliminate any background noise, (f) avoid wasting time during the remote hearing, and (g) take whatever measures or practices necessary to support the procedural efficiency of the remote hearing.
- Similar ideas are included in other virtual hearing protocols recently released, for example, section D of the International Chamber of Commerce (ICC) Checklist for a Protocol on Virtual Hearing, and Section 6 of the Bahrain Chamber for Dispute Resolution – American Arbitration Association (BCDR-AAA) Guidelines on the preparation and conduct of online hearings administered by BCDR.
- Regulating where one of the Speakers (i.e., party or arbitrator) loses connection to the platform or experiences a security incident by providing guidelines for a back-up plan to troubleshoot and deal with such incidents and, if necessary, to reconvene if technical challenges prevent the participants from continuing to participate in the remote hearing.
- Providing for the pausing or termination of the remote hearing if the tribunal determines that the platform is not working as anticipated, confidentiality or security are compromised, or the format is otherwise inadequate, prejudicial to any party or to the integrity of the remote hearing.

These suggestions could be adopted independently in the procedural order. They may also be

taken into account in any revision of the Protocol. However, leaving aside these points, the Protocol will complement and bolster existing efforts to provide a framework for the conduct of remote hearings generally and on a case-by-case basis. It confirms ADGMAC's commitment regulating arbitration to an international "best practice" standard.

*43

Virtual Witnesses

Witness evidence, as noted above, plays a crucial role in arbitration proceedings, including because it allows the arbitral tribunal to understand the documentary evidence in the context of the parties' key issues. The dynamics of giving evidence or giving instructions to a lawyer virtually are different than in a physical context. Parties, lawyers and witnesses themselves may have legitimate concerns whether appearing by video will harm their credibility – especially where the fact evidence is critical. Would they be more believable in person? Can they persuade a tribunal as effectively with just their head and shoulders appearing on screen?²⁸

A global study carried out by the Global Deception Research Team stated that diverse populations across 75 different countries all share the common belief that people that lie tend to avert their gaze when they are trying to deceive. Other common stereotypes are that liars fidget a lot, speak quickly and shift their feet about. Interestingly, the experimental research into deception behaviour shows that diverse populations across 75 countries are wrong. Experts in lie and truth detection agree that there is no single non-verbal cue that reliably signals deception.²⁹

In order to read a witness accurately, we need to collate all sources of information (verbal, non-verbal, situational), cross-reference those sources against their normal baseline, and look into the reason behind any concealed emotion. This is a skill we can develop with practice. A US study found that specialists in lie detection at the CIA and other federal law-enforcement *44 agencies are significantly better at catching liars (73% accuracy) than regular law-enforcement officers (51% accuracy) and federal judges (62% accuracy).³⁰

Therefore, the absence in virtual proceedings of some of the things used – albeit sometimes wrongly – to assess credibility in physical proceedings means that some participants have less confidence in virtual proceedings. Conversely, burdened with misconceptions about assessing credibility, there is an inherent risk that arbitrators might subconsciously take into account their views of the shortcomings of virtual hearings for assessing credibility when they come to do so. During cross-examination, for example, arbitrators in a virtual proceeding will not have the same ability to analyse body language of the witnesses as during physical in-person testimony. On the other hand, given the defects in how credibility is assessed, as discussed above, this may be a good thing.³¹

A witness who is unfamiliar with online meeting platforms might not convincingly look directly at the person asking the questions (that is, look into the lens of the computer camera), inadvertently raising concerns about credibility where no such concerns should exist.

On the other hand, in several cultures, it is considered impolite and disrespectful to look someone in the eye. In a virtual proceeding, witnesses from those cultures can "level the playing field" in relation to the biases of some arbitrators of assessing poorly the credibility of a person who does not look them in the eye. It may be easier for such witnesses to look just into the camera, appearing to be making eye contact, while actually not looking the arbitrator in the eye.

*45

While it is too early to conclude as much, it is likely that the challenges faced by virtual hearings may be found ultimately to improve an arbitrator's hearing, appreciation, and assessment of evidence. The procedures imposed by virtual proceedings may increase a tribunal's focus on the evidence itself, unfiltered or less filtered through unconscious biases. The visual, verbal, and behavioural clues used to (mis)categorise others based on age, gender or social background might be found ultimately to be muted through virtual witness testimony. Although the effect of virtual hearings on the assessment of evidence is not certain, it is certain that witness presentation and examination is different in a virtual setting.³²

"The Psychological Impact of Remote Hearings", Summer 2021

In the summer of 2021, Berkeley Research Group, LLC (“BRG”) published a report called The Psychological Impact of Remote Hearings³³, based on interviews of BRG testifying experts and a small number of external contributors.

The Report concluded as follows:

“... the experience of remote hearings and tribunals has been largely positive and, in many cases, has exceeded expectations. At the same time, people involved in such hearings acknowledge the psychological impact of conducting proceedings remotely. The degree to which this has affected the outcome varies, although the overall consensus suggests it has not been strong enough to alter the expected results.”

*46

Among the more specific observations and conclusions of the Report regarding virtual proceedings generally are the following:

1. The majority of those interviewed considered that the outcomes of proceedings were the same as if they had taken place in person under normal circumstances.
2. As is generally known, almost everyone experienced some technical glitches or interruptions to proceedings during the initial phase of virtual hearings in early 2020, however tribunals were largely sympathetic to those attempting to do their best under difficult conditions, and the impact was limited.
3. Once remote working teams were up and running, most technological issues were overcome, and from that point onwards it was largely plain sailing from a technological perspective.
4. While initially technical glitches may have disrupted the flow of proceedings, counsel reported that they found switching to remote hearings did not affect their ability to question or determine the validity of an expert witness's viewpoint – on the contrary, improving technology and the ability to zoom in on those undergoing cross-examination may heighten any telling facial expressions.
5. Subconsciously, frustration over technology issues may be visited by an arbitrator on a witness being questioned, and delays caused by a connection issue may be misinterpreted as hesitation in answering a question.
6. Consistent with the observations elsewhere in this article about mannerisms having the potential to lead to incorrect credibility conclusions, psychologists pointed out that withdrawing video from the equation altogether would allow decisions to be made based purely on *47 speech and lessening the potential impact of unconscious bias from decision-makers.
7. Psychologists pointed out that in a virtual hearing arbitrators must focus more – some would argue the majority – of their mental capacity on managing the unnatural situation rather than carefully considering the evidence – which supports the argument made in this article that to the extent possible, management of the technology of virtual hearings should be entrusted to independent virtual case management experts.

Among the observations and conclusions of the Report regarding witnesses in virtual proceedings generally are the following:

1. Some expert witnesses reported that they prefer the additional virtual barrier between them and cross-examining counsel, and that techniques sometimes used by counsel to attempt to place pressure on and unnerve expert witnesses were significantly less effective in a virtual hearing compared to in-person.
2. The relaxed setting of familiar surroundings such as a home office has a noticeable psychological impact on expert witnesses, placing them at ease, which in turn allows for more considerate answers to questions. On the other hand, familiar settings can result in a witness being lulled into a false sense of security to the benefit of the cross-examining counsel.
3. Some expert witnesses reported that their exchanges with examining counsel are more

conversational in style when they occur virtually.

4. Also, some expert witnesses said that they resort to imagining a physical environment to prepare mentally for each question and maintain focus.
5. Virtual preparations between counsel and witnesses may have limitations: it was reported that they lack the intensity or anticipation associated with an in-person examination which helps build confidence and ensures that everyone is on the same page – combined with a lack of pre-hearing team ^{*48} building, this can lead to miscommunication between counsel and a witness.
6. Interestingly, some expert witnesses stated that they would prefer to travel to conduct preparation in person, even if the hearing will be conducted remotely.

Practical Tips for Preparing Witnesses

The challenges of virtual witness evidence can be addressed through careful and detailed preparation. The legal team needs to get their witnesses as comfortable as possible with virtual hearings. Witness familiarisation trainers now offer training for witnesses to prepare them to testify in a virtual hearing.

Other practical measures for witnesses include the following³⁴:

- a) Optimise connections – It is important to assess a witness's computer hardware and internet capacity in advance of the hearing to ensure that connections are optimised.
- b) Camera view – Adjust the angle and scope of the witness's camera. Position the camera at a sufficient distance away so that the hand and arm gestures are visible in addition to a clear head shot. A slight upward angle will make the witness appear taller to the viewer. Explain to the witness the importance of looking into the camera and making “eye contact” with those viewing the witness. ^{*49}
- c) Audio equipment – Assess the quality of the witness's audio output and use microphones / headsets to minimise distraction from any background noise and have the best possible sound quality.
- d) Background – Ensure that the witness appears in a plain background and is ideally wearing a white shirt rather than a striped shirt, which may cause a blur.
- e) Lighting – Test the lighting of the witness at the time of day the witness is due to give evidence. The light should be coming from in front of the witness, not behind.
- f) Training and Rehearsal – Explain to the witness about the video platform features and provide sessions in advance to familiarise the witness with the systems.
- g) Documents – Get the witness comfortable with how documents will be presented to him or her on the screen in a screenshare mode.

Practical Tips for Counsel and Arbitrators³⁵

There are practical things that arbitration counsel and arbitrators can do to increase their effectiveness in virtual hearings. These practical measures include the following:

- a) Place sticky notes on the top of your monitor as an aide-mémoire;
- b) Put your phone on silent; ^{*50}
- c) Mute as and when required, which usually will be any time you are not an active speaking participant in the hearing, and learn how to unmute quickly (e.g.: on Zoom, holding down the space bar with temporarily unmute);
- d) For counsel, if there is a leader and junior, it is helpful to be in the same room physically, to

enable the junior to share notes with the leader, and if not in the same room, to have an established method of communicating such as WhatsApp (but do not rely on the chat, which could prove embarrassing if someone errs); and

- e) Make the e-bundle work for you, which often may involve obtaining professional assistance if you are not familiar with the techniques and technology, and assistance to advance the documents on the screen.

Practical Tips for Conducting Virtual Hearings Effectively

There are practical things that can be done to conduct virtual hearings effectively. These practical measures include the following:

- a) Sit for shorter days to reduce screen fatigue, especially if there are significant time zone differences;
- b) Take more breaks than in an in-person hearing to reduce screen fatigue;
- c) Do not look at yourself on the screen, as it is distracting and tiring;
- d) Normally (as noted above) it is not a good idea to use the Zoom chat function to communicate among team members or among members of a three-person arbitral tribunal; *51
- e) Agree on a protocol for how counsel can object during an examination; and
- f) The sole arbitrator or tribunal chair should explain to participants that tribunal will be working throughout the hearing, including looking at documents, taking notes, and looking at numerous screens, so that the fact an arbitrator is not looking into the camera is not an indication that the arbitrator is not paying attention and working – in fact, often it is the opposite that is the case.

Conclusion

In some ways virtual and particularly hybrid hearings are still in their infancy. However, they are going to be a part of international construction arbitration for the foreseeable future. Virtual hearings will be a material part of international arbitration when the Covid-19 pandemic is behind us and some physical in-person hearings resume.

Virtual hearings have made it harder and more stressful for many people who have participated in hearings, including a reduced capacity for clients to interact with counsel during proceedings. Clients may feel disengaged from virtual hearings, in which they are reduced to a name on an attendee list.

Many arbitrators have found remote proceedings add stress and confusion to hearings, made worse by greatly diminished ability to interact with clients. The essential human interaction we normally enjoyed before, during and after hearings is removed. Many have reported feelings of isolation and detriment to their well-being.

*52

Those involved in international arbitration have come to appreciate their advantages, including the savings of time and cost, and various efficiencies. The recent protocols and guidance notes, and various form of procedural orders that are being developed and improved on an ongoing basis, provide useful guidance for counsel and arbitrators for effective virtual hearings. Even with this useful guidance there are limitations, which will need to be fine-tuned over a period of time.

Virtual hearings are not a precise replica of physical in-person hearings. Both have advantages and disadvantages. There is no doubt that some aspects of physical in-person hearings are missed by those involved in international arbitration – particularly in large, complex cases and in multi-time zone situations – although in varying degrees. Other aspects of physical in-person hearings are not missed at all.

Understanding and mastering the effective use of virtual and hybrid hearings is essential for arbitration counsel and arbitrators. As techniques, practices, and technology advance, perhaps in

ways that we cannot even imagine today, virtual and hybrid hearings will improve, as will the facility of all participants to conduct them effectively.

Construction, Engineering and Energy Law Journal 2022, (1), 33-52

[19.](#) Dr. Tariq Mahmood, FCI Arb is Head of Arbitration & ADR at 33 Bedford Row Chambers in London. He can be contacted at t.mahmood@33bedfordrow.co.uk.

[20.](#) The Honourable Barry Leon, FCI Arb was the presiding judge of the BVI Commercial Court from 2015—2018. He is an independent arbitrator and mediator with Arbitration Place, in Canada, Caribbean Arbitrators and 33 Bedford Row Chambers in London. He can be contacted at b.leon@33bedfordrow.co.uk.

[21.](#) <https://iccwbo.org/dispute-resolution-services/hearing-centre/icc-virtual-hearings/> (accessed on 23 April 2021)

[22.](#)

http://www.kcabinternational.or.kr/user/Board/comm_notice_view.do?BBS_NO=548&BD_NO=169&CURRENT_MENU_CODE=MENU0025&TOP_MENU_CODE= (accessed on May 1, 2021)

[23.](#) <https://www.33bedfordrow.co.uk/insights/articles/the-seoul-protocol-on-video-conferencing-in-light-of-covid-19> (accessed on May 1, 2021)

[24.](#) <https://www.africaarbitrationacademy.org/protocol-virtual-hearings/> (accessed on May 1, 2021)

[25.](#)

<https://www.33bedfordrow.co.uk/insights/articles/africa-arbitration-academy-protocol-on-virtual-hearings-in-africa--a-leap-in-the-right-direction> (accessed on May 1, 2021)

[26.](#) <https://www.ciarb.org/media/8967/remote-hearings-guidance-note.pdf> (accessed on May 2, 2021)

[27.](#) Gaffney, John, "The ADGMAC Protocol for Remote Hearings: An Overview" (accessed on October 17, 2021)

[28.](#) Catwright-Finch, U, Virtual Witness, Cortex Capital, November 2020

[29.](#) The Global Deception Research Team (2006). A World of Lies. *Journal of Cross-Cultural Psychology*, 37(1): 60—74

[30.](#) Stromwall, L.A & Granhang, P.A (2003). "How to detect deception? Arresting the beliefs of police officers, prosecutors and judges", *Psychology, Crime and Law*, 9 19—36

[31.](#) Correia, Fleury, Gama e Silva Advogados, "Virtual hearings on the merits of the arbitration: a step too far or the only path to follow?" (*The Legal 500*, 2020) (accessed 04 May 2021)

[32.](#) Webinar, Pinsent & Mason, "The challenges of presenting and examining witness evidence in International Arbitration in a virtual world" (accessed on April 20, 2021)

[33.](#) [BRG-Remote-Hearing-Impact-2021-Final.pdf](#) (thinkbrg.com)

[34.](#) Mulcahy, L, Rowden, E.& Teeder, W.(2020). Exploring the case for Virtual Jury Trials during the COVID-19 crisis: <https://files.justice.org.uk/wp-content/uploads/2020/04/06165956/Mulcahy-Rowden-Virtual-trials-final.pdf> (accessed 21 February 2022)

[35.](#) <https://www.judiciary.uk/wp-content/uploads/2020/06/CJC-Rapid-Review-Appendices-f-1.pdf> (accessed 03 May 2021)

© Thomson Reuters (Professional) Ireland Limited.

WESTLAW IE