THE FALLACY OF "LIVE" CONFRONTATION: A SURPRISING LESSON FROM VIRTUAL COURTS

Andrea Roth[*]

As the COVID pandemic besieged court systems, many commentators insisted that "virtual" procedures were undesirable or even unconstitutional, given a criminal defendant's right to be "confronted with" the witnesses against him. Proposals for modified procedures were judged largely by their fidelity to "liveness." This Essay explores an underappreciated dark side to equating the right of confrontation with "liveness." In fact, COVID's lesson should be precisely the opposite: confrontation should be recognized not merely as a right to specific in-person trial procedures but as a right to meaningful scrutiny of the government's proof. As such, the right of confrontation will often be better protected through "virtual" forms of scrutiny outside, rather than inside, the courtroom, from access to witnesses' prior statements, to a broader right to impeach with extrinsic evidence, to a right to impeach nonhuman evidence that cannot be cross-examined "live." The Essay draws upon similar critiques of "liveness" from the history of sound reproduction, in the context of music.

TABLE OF CONTENTS

[*] Professor of Law, UC Berkeley School of Law. Many thanks to Hadar Dancig-Rosenberg and Itay Ravid for organizing this symposium; to the participants for their helpful feedback; to UC Berkeley Professor of Music Nicholas Mathew, for introducing me to existing critiques of liveness in the music context; to research assistant Kate Bulger for excellent edits; and to the student editors of the Illinois Law Review.

I. INTRODUCTION

The COVID-19 pandemic, for a time, rendered the typical "live" criminal trial in the United States impossible. In particular, the inability of parties, the judge, jurors, and witnesses to come together in a physical courtroom made in-person examination of witnesses infeasible. The system faced a choice: proceed with "virtual" criminal trials or postpone trials until they could be "live" again.

The looming specter of Zoom trials inspired a national conversation about the importance of "liveness" in ensuring fair criminal adjudication. Most courts and commentators appeared to assume that "virtual" criminal trials would be not only undesirable but unconstitutional. Most obviously, the logic went, a virtual trial would violate the accused's Sixth Amendment right "to be confronted with the witnesses against him."[1] Commentators discussing the possibility of virtual criminal trials concluded that the inability of a defendant to engage in "face to face confrontation" of witnesses would likely be a constitutional dealbreaker except under the most extraordinary circumstances.[2] Although a defendant on Zoom could still ask a witness questions and impeach the witness in various ways, commentators and litigants insisted that "live" physical confrontation and cross-examination in a courtroom were critical to a fair criminal trial.[3] Indeed, case law is largely on their side; the Supreme Court has held that limits on physical confrontation (such as allowing a child witness in a sexual assault case to testify by closed circuit television (CCTV)) are only constitutional if "necessary," based on "individualized" case-specific findings, "to further an important public policy, and only where the reliability of the testimony is otherwise assured."[4] Meanwhile, the Court has declined to recognize a constitutional right to more "virtual" forms of witness impeachment, however critical, such as the right to access prior inconsistent statements of a witness to expose potential lies or mistakes or the right to point out that an absent hearsay declarant has made prior false allegations.[5]

While I ultimately agree that physical confrontation is a critical aspect of criminal trials, I argue in this short Essay that there is a surprising and underappreciated dark side to equating the right of confrontation with "liveness." In fact, the lesson we learn from the COVID era should be precisely the opposite: the right of confrontation should be recognized not merely as a right to specific in-person courtroom procedures during a trial but as a right to meaningful scrutiny of the government's proof. As such, the right of confrontation will often be better protected through "virtual" forms of scrutiny outside, rather than inside, the courtroom.

1. U.S. CONST. amend. VI.
2. *See* discussion *infra* Part II.
3. *See* discussion *infra* Part II.
4. Maryland v. Craig, 497 U.S. 836, 845, 850 (1990).
5. *See* Pennsylvania v. Ritchie, 480 U.S. 39, 54 (1987) (holding that the Confrontation Clause does not require disclosure of a witness's prior inconsistent statements unless material and exculpatory); Nevada v. Jackson, 569 U.S. 505, 511 (2013) (holding that the Clause does not guarantee a right to impeach an absent hearsay declarant with extrinsic evidence of a prior false allegation).

To make this point, this Essay draws upon critiques of the concept of "liveness" in two other contexts: music and remote instruction. Before recording was possible, no one spoke of a concert or performance being "live."[6] It was simply a performance, in a particular medium (such as a symphony hall or an outdoor amphitheater), with various mediating circumstances between the listener and the performer (such as the distance from the stage to the audience, physical obstructions, amplifications, and other modifications of sound, and even emotionally distancing features). A "high fidelity" recording was one that came closest to "liveness"—an allegedly less mediated, purer means of hearing music. But of course, this insistence upon "live" music as pure and unmediated was a fallacy; an in-person concert is just as much a mediated experience as a studio recording, just in different ways with different artifacts. Indeed, there are many who have described studio recordings as "purer" than live performances. In short, there is no unmediated experience of hearing music.

One could make these same observations about "virtual" versus "live" classroom instruction: the "live" classroom is a mediated space just like the Zoom classroom or asynchronous video instruction.[7] In some ways, Zoom is more intimate, more exposing, and more conducive to collaboration; asynchronous learning might be less anxiety-inducing and allow better review of lectures. If the physical classroom is key to learning, it is not because it is "live" and, therefore, an inherently purer, less mediated, or better experience. Rather, it is because particular artifacts of the physical classroom (such as having one's sense of smell and touch more engaged) turn out to be key to learning and outweigh the disadvantages created by other artifacts (such as assigned seats or student anxiety created by having to answer questions on short notice in a large room).[8]

In the same respect, we should not fall prey to the fallacy that "live" confrontation is the one pure, unmediated form of confrontation and that all other forms are facsimiles thereof, of varying degrees of fidelity. Rather than judging the adequacy of a procedure on how well it mimics "live" confrontation, we should be judging it based on how well it allows meaningful scrutiny of the government's proof.[9] One way of envisioning meaningful confrontation beyond the courtroom is to imagine how one might confront conveyances of information that cannot be cross-examined: absent hearsay declarants, animals, and machines. In turn, many "virtual" forms of confrontation – such as access to prior statements, impeachment by extrinsic evidence, and access to information about eyewitness identification procedures – can and should be guaranteed with respect to testifying witnesses as well and, in a given case, might be more important than cross-examination or physical confrontation. Of course, we might well discover aspects of "live" confrontation that are, in a given case, critically important to

6. *See* discussion *infra* Part III. *See generally* JONATHAN STERNE, THE AUDIBLE PAST: CULTURAL ORIGINS OF SOUND REPRODUCTION 215 (2003) (discussing, in Chapter 5, the social construction of the concept of "live" music).

7. *See* discussion *infra* Part III.

8. *See* discussion *infra* Part III.

9. Others have previously argued for a similarly broader conception of the Confrontation Clause, on other grounds. *See* discussion *infra* Part IV.

the values we hope to deliver through our system of adjudication. But these are the aspects we should focus on, not "liveness" as an end in itself.

Part II of this Essay describes how the COVID-19 epidemic inspired both a new national conversation about the importance of "liveness" in criminal adjudication as well as legal challenges to procedures that did not sufficiently mimic traditional live proceedings. Part III sets the stage for my critique of this focus on "live" confrontation by explaining critiques of liveness in the music and remote instruction contexts. Part IV returns to criminal trials and imagines what aspects of live and virtual procedures might be desirable, or even constitutionally required, given a broader view of the right of confrontation as an opportunity to meaningfully scrutinize the government's proof. Part V concludes with thoughts about the future of trials in the post-pandemic era.

II. THE REJECTION OF "VIRTUAL" CONFRONTATION IN THE COVID ERA

As courthouses shut down starting in March 2020, litigants and judges in criminal cases faced a dilemma. In-person jury trials, requiring people to come to a physical courthouse for jury selection and trial, were not possible in light of public health stay-at-home orders. Instead, courts could postpone trials, creating potential problems for the defendant's Sixth Amendment right to a "speedy trial," or could find a way to hold trials virtually, on Zoom or another online platform.[10] After all, the federal CARES Act, passed in late March 2020, and various similar emergency state measures allowed courts to conduct pretrial criminal proceedings such as preliminary hearings online.[11] Attorneys also had to move their meetings with incarcerated clients to video or phone calls, given orders that disallowed in-person jail visits.[12] Nonetheless, when it came to trials themselves, trial courts uniformly chose to postpone them, and appellate courts uniformly deemed such delays to be legal under various exceptions to statutory speedy-trial requirements and under the flexible multi-factored test for constitutional speedy trial violations.[13]

One reason trial courts uniformly chose to postpone criminal trials rather than try to conduct them virtually was an assumption that Zoom trials would not be constitutionally adequate for purposes of the many trial rights granted to the defendant under the Sixth Amendment, such as the right to a public trial, by a jury coming from a fair cross-section of the population, with compulsory process to require favorable witnesses to testify, and with the assistance of counsel.[14] On Zoom, these rights would be harder to enforce or realize.

10. U.S. CONST. amend. VI.

11. *See, e.g.*, Ayyan Zubair, *Confrontation After COVID*, 110 CALIF. L. REV. 1689, 1692 (2022) (collecting sources describing various virtual practices in criminal cases in the early days of the pandemic).

12. *See* Dale Chappell, *COVID-19 Causes Public Defenders to Change How They Handle Cases*, PRISON LEGAL NEWS (Aug. 1, 2020), https://www.prisonlegalnews.org/news/2020/aug/1/covid-19-causes-public-defenders-change-how-they-handle-cases/ [https://perma.cc/QS54-L827].

13. *See* Barker v. Wingo, 407 U.S. 514, 530 (1972) (adopting a multi-factored flexible test for determining violations of a defendant's Sixth Amendment right to a "speedy trial").

14. *See* Zubair, *supra* note 11, at 1694.

Most conspicuously, there appeared to be widespread recognition among litigants, judges, and scholars that a Zoom trial would not allow criminal defendants to engage in "live" physical confrontation and cross-examination of witnesses. The absence of live physical confrontation, many argued, would violate the accused's Sixth Amendment right "to be confronted with the witnesses against him."[15] Even commentators who argued that virtual confrontation could be constitutional in certain circumstances acknowledged that live confrontation is "ideal confrontation" and that virtual confrontation should be judged by its ability to mimic the types of scrutiny facilitated by liveness: cross-examination and demeanor.[16] Moreover, commentators appeared to universally agree that full Zoom trials would not be constitutional in criminal cases absent a waiver from the defendant.[17] Even when in-person trials resumed months later, with anti-disease measures in place such as witnesses wearing masks and separated from the jury through see-through glass and physical distance, many defendants insisted

15. U.S. CONST. amend. VI. *See generally* NAT'L CTR. FOR STATE CTS., CONSTITUTIONAL CONCERNS RELATED TO JURY TRIALS DURING THE COVID-19 PANDEMIC 8 (2021), https://www.ncsc.org/__data/assets/pdf_file/0034/57886/Constitutional-Concerns-Related-to-Jury-Trials-During-the-COVID-19-Pandemic.pdf [https://perma.cc/354L-SZ9B] (explaining potential Sixth Amendment confrontation issues with Zoom trials). *See also* Norman M. Garland, *The Constitutionality of Remote Trials*, 51 SW. L. REV. 107, 108 (2021) (arguing that the right to live confrontation generally will outweigh pandemic-related public policy considerations); Brandon Marc Draper, *Revenge of the Sixth: The Constitutional Reckoning of Pandemic Justice*, 105 MARQ. L. REV. 205, 206 (2021) (arguing for a constitutional amendment to allow criminal trials by videoconference but noting that such an amendment would likely be necessary to allow Zoom trials).

16. Caitlin Erin Murphy, Note, *It's Time to Extend* Maryland v. Craig*: Remote Testimony by Adult Sex Crime Victims*, 19 CONN. PUB. INT. L.J. 367, 367–68 (2020). *See also* Zubair, *supra* note 11, at 1710–13; Taylor Maurer, Comment, *Videoconferencing, Covid-19, and the Constitution: Will Virtual Trials "Minimize" the Right to Confrontation?*, TEMP. L. & PUB. POL'Y F. (Jan. 15, 2021), https://www2.law.temple.edu/lppp/videoconferencing-covid-19-and-the-constitution-will-virtual-trials-minimize-the-right-to-confrontation/ [https://perma.cc/EL2U-M2NT] (expressing doubt about whether Zoom trials would be constitutional, even though the right of physical confrontation is not "absolute"); Daniel Robinson, Note, *Confrontation During COVID: A Fundamental Right, Virtually Guaranteed*, 12 U. MIAMI RACE & SOC. JUST. L. REV. 116, 139 (2021) (arguing for a more flexible approach to virtual confrontation but acknowledging that it requires special circumstances); Eric Scigliano, *Zoom Court Is Changing How Justice Is Served*, ATLANTIC (Apr. 13 2021), https://www.theatlantic.com/magazine/archive/2021/05/can-justice-be-served-on-zoom/618392/ [https://perma.cc/QN78-LFLK] (noting that "[t]he importance of physical presence is a rare point on which defenders and prosecutors agree" and quoting the president of the National District Attorney's Association as saying, "I do not see how people can fully assess credibility if we are not all in the same room").

17. *See, e.g.*, STANFORD CRIMINAL JUSTICE CENTER, VIRTUAL JUSTICE? A NATIONAL STUDY ANALYZING THE TRANSITION TO VIRTUAL CRIMINAL COURTS (Aug. 2021) 112–15, https://www.strengthenthesixth.org/Document/SCJC-Report-2021 [https://perma.cc/35PP-Z8P8] (noting that confrontation issues were the most frequently raised constitutional issues with virtual criminal courts in a national survey); Phillip C. Hamilton, *The Practical and Constitutional Issues with Virtual Jury Trials in Criminal Cases*, AM. BAR ASS'N (Feb. 26, 2021), https://www.americanbar.org/groups/litigation/committees/criminal/articles/2021/spring2021-practical-and-constitutional-issues-with-virtual-jury-trials-in-criminal-cases/ [https://perma.cc/BAA6-PXNV]; *Virtual Proceedings*, STRENGTHENING THE SIXTH, https://www.strengthenthesixth.org/Content/Virtual-Proceedings (last visited July 4, 2023) [https://perma.cc/VGT2-EKR9] (cataloging criminal court rulings during the pandemic either disallowing remote witness testimony or allowing in a limited way).

that such measures violated their right of confrontation because they interfered with jurors' ability to see the witnesses' demeanor.[18]

For the most part, current Confrontation Clause jurisprudence generally supports these commentators' and litigants' assumptions that face-to-face physical confrontation and cross-examination are the *sine qua non* of constitutionally adequate witness confrontation. In *Coy v. Iowa*, for example, the Supreme Court condemned a procedure that allowed an alleged victim to testify against a criminal defendant behind a screen.[19] Justice Scalia, writing for the *Coy* majority, waxed poetic about the need to confront one's accuser "face to face" and described the "'literal right to confront' the witness *at the time of trial*" as forming "the core of the values furthered by the Confrontation Clause."[20] To be sure, the Court walked back a bit two years later in *Maryland v. Craig*, allowing a child witness to testify via closed circuit television based on a trial court's individualized findings that the witness would be traumatized by testifying in open court in front of the defendant.[21] But the Court made clear that such individualized findings of "serious emotional distress," along with an allowance for cross-examination and witnessing of demeanor by the defendant and factfinder, would be required to allow any deviation from face-to-face confrontation.[22] (Justice Scalia, in dissent, derisively called this "virtual" procedure only "virtually constitutional.")[23] Even though the *Craig* Court gave lip service to the idea that face-to-face confrontation is not the ultimate goal of the Confrontation Clause, the Court in other cases has conspicuously refused to recognize that the Clause guarantees any *other* procedures besides face-to-face physical confrontation and cross-examination. In particular, the Court has refused to recognize a right of access to a key witness's prior statements[24] or the right to impeach a hearsay declarant (who cannot be cross-examined) with extrinsic evidence of prior false allegations.[25]

Interestingly, though this line of cases indicates that the right of "face to face" confrontation has an ancient pedigree, courts' invocation of the concept of "live cross-examination" appears to be somewhat recent. The phrase "live cross-

18. *See, e.g.*, U.S. v. Donzinger, No. 19-CR-561, 2020 U.S. Dist. LEXIS 157797, at *5–6 (S.D.N.Y. Aug. 31, 2020) (rejecting challenge to mask mandate in courtroom); Order Denying Petition for Extraordinary Relief at *1, Blandino v. Eighth Judic. Dist. Ct. of Nev., 478 P.3d 936 (Nev. App. 2021) (No. 82034-COA) (rejecting defendant's challenge to court order requiring witnesses to wear masks).

19. Coy v. Iowa, 487 U.S. 1012, 1034 (1988).

20. *Id.* at 1017 (emphasis added) (citations omitted). *See also id.* (describing the Clause as categorically guaranteeing, but only guaranteeing, the rights of physical confrontation and cross-examination) (citing Pennsylvania v. Ritchie, 480 U.S. 39 (1987)). *See also* Order Amending the Federal Rules of Criminal Procedure, 535 U.S. 1159, 1160 (2002) (statement of Scalia, J.) ("Virtual confrontation might be sufficient to protect virtual constitutional rights; I doubt whether it is sufficient to protect real ones.").

21. Maryland v. Craig, 497 U.S. 836, 860 (1990).

22. *Id.* at 855–57.

23. *Id.* at 870 (Scalia, J., dissenting).

24. *See* Pennsylvania v. Ritchie, 480 U.S. 39, 62 (1987).

25. *See* Nevada v. Jackson, 569 U.S. 505, 512 (2013); *cf.* Mattox v. United States, 156 U.S. 237, 250 (1895) (upholding a trial court's refusal to allow a defendant to impeach a deceased hearsay declarant with witnesses who would testify that the declarant admitted to lying, though not mentioning the Confrontation Clause).

examination" is used nearly 300 times, but never before 1972.[26] The phrase "live witness" is used over 9,000 times, but only six times before 1950.[27] Likewise, the phrase "live testimony" appears only once before 1950 (in a 1949 Alabama case), only thirteen times in the 1950s, hundreds of times beginning in the 1960s, and now over 10,000 times.[28] Why would earlier courts be less inclined to invoke the importance of "liveness" in witness testimony and confrontation?

As it turns out, as explored in the next section, the focus on "liveness" in music, learning, and trials is itself a product of new technologies making new forms of reproduction and interaction possible. Just as the concept of an "original" has no meaning apart from the ability to "copy," the concept of "live" has no meaning apart from the ability to engage in sound reproduction, remote learning, and Zoom court. And just as the equating of "liveness" with purity in the sound and learning contexts is fallacious, the use of "liveness" as the baseline for what justice requires might be more socially constructed than the law assumes.

III. THE FALLACY OF "LIVENESS": LESSONS FROM SOUND REPRODUCTION AND REMOTE INSTRUCTION

The COVID-era debate over the importance of "liveness" to confrontation could benefit from a greater understanding of how "liveness" came to be viewed as important in another domain: music performance.[29]

In *The Audible Past: Cultural Origins of Sound Reproduction*, McGill University Professor of Culture and Technology Jonathan Sterne chronicles how the concept of "liveness" in music is a recent development.[30] "Live music" is meaningful only in relation to the newfound ability to record music, in the same way that an "original" of something is meaningful only in relation to the ability to make a copy.[31] As Sterne explains, "the term live as we apply it to music (and potentially to all face-to-face communication)" entered the "lexicon . . . only in the 1950s, as a part of a public relations campaign by musicians' unions in Britain and the United States."[32] Unions represented musicians whose livelihoods

26. *See generally* Carter-Wallace, Inc. v. Otte, 474 F.2d 529, 536 (2d Cir. 1972) (using the term "live cross-examination" for the first time).

27. *See Results for: "live witness"*, LEXIS+, https://plus.lexis.com/search/ (last visited July 5, 2023) [https://perma.cc/ME2C-S8VF] (search in search bar for "live witness") (returning twenty-five results for usage of the phrase "live witness" before 1950).

28. *See Results for: "live testimony"*, LEXIS+, https://plus.lexis.com/search/ (last visited July 5, 2023) [https://perma.cc/ME2C-S8VF] (search in search bar for "live testimony") (returning over 10,000 results for the phrase "live testimony").

29. I am grateful to Nick Mathew, a concert pianist and professor in the UC Berkeley School of Music, for introducing me to the history of sound reproduction discussed here. We discuss these ideas further in a recent Berkeley School of Music podcast (hosted by Professor Mathew). *EP02: "Remote Instruction?"*, BERKELEY PODCAST FOR MUSIC, at 01:50 (Sept. 15, 2020), https://soundcloud.com/berkeleymusic/ep02-remote-instruction-presented-by-nicholas-mathew?utm_source=clipboard&utm_campaign=wtshare&utm_medium=widget&utm_content=https%253A%252F%252Fsoundcloud.com%252Fberkeleymusic%252Fep02-remote-instruction-presented-by-nicholas-mathew [https://perma.cc/WU2P-J2NR].

30. STERNE, *supra* note 6, at 221.

31. *Id.*

32. *Id.*

were threatened by the era of mass-reproduced sound. In touting "live" music as the ideal baseline, audio recordings became judged based on their fidelity to liveness, how much they sounded like live music and reproduced the idea of being in the concert hall oneself.[33] Hence, RCA Victor's high-fidelity system faithfully reproduced for the dog the sound of "his master's voice."[34]

The assumption underlying these accounts of "sound fidelity" to liveness is that recorded sound is one step removed from the real thing; it is merely a "mediation of 'live' sounds, such as face-to-face speech or musical performance, either extending or debasing them in the process."[35]

But as Sterne points out, the concept of live music as a pure, unmediated experience of sound—and recorded music as, at best, an approximation of this experience with varying degrees of fidelity[36]—is a fallacy. In truth, face-to-face music performance, like all communication, is also a mediated experience. While present in a music hall listening to a performance, an audience member is physically distanced from the performer, often with rows of other audience members (making their own sounds), not to mention billows of smoke, resonant spaces, and amp feedback, all affecting the listener's experience. Far from being simply replications of liveness, music recordings are entirely different in that the very process of recording changes the enterprise. The performer is self-consciously performing for a different audience under different conditions. In the studio, the performer might be more intimate, relaxed, and capable of exerting certain types of control over the listener's experience not possible in a live venue.[37]

Which is the "authentic" experience—hearing the performer "live" or hearing the performer recorded? The very act of choosing one as authentic and defining authenticity in terms of fidelity to liveness is, according to Sterne, an artifact of sound reproduction.[38] In truth, as Sterne explains, "reproduction does not really separate copies from originals but instead results in the creation of a distinctive form of originality: the possibility of reproduction transforms the practice of production."[39] For one thing, the performance itself changes when the

33. *Id.* at 190.

34. *Id.* at 217.

35. *Id.* at 218.

36. For example, Sterne notes those who criticize digital recordings as being "more ontologically distant from live performance than analog recording" because the latter, according to digital critics, represents an "unbroken chain from the sound in the living room to the original sound as recorded." *Id.* at 217–18.

37. Sterne discusses the eroticization of physical distance in popular culture, suggesting the perhaps counterintuitive "depth of interconnection made possible by bodily absence." Anecdotally, therapists have noted that phone sessions can be more intimate than video session for many patients. *See, e.g.*, Lori Gottlieb, *The Surprising Intimacy of Online Therapy Sessions During the Pandemic*, WASH. POST (May 18, 2020), https://www.washingtonpost.com/opinions/2020/05/18/surprising-intimacy-online-therapy-sessions-during-pandemic/ [https://perma.cc/C55T-BFVU] (noting the aspects of online therapy that unexpectedly promote intimacy compared to in-person therapy); Matt Lundquist, *Therapy over the Internet Vs. Phone Therapy: A Primer*, TRIBECA THERAPY, https://tribecatherapy.com/therapy-over-the-internet-vs-phone-therapy-a-primer/ (last visited July 5, 2023) [https://perma.cc/L93R-Q8J4] (noting that phone calls can be more intimate than video calls for therapy).

38. *See, e.g.*, STERNE, *supra* note 6, at 220 ("[T]he very construct of aura is, by and large, retroactive, something that is an artifact of reproducibility, rather than a side effect or an inherent quality of self-presence. Aura is the object of a nostalgia that accompanies reproduction.").

39. *Id.*

performer knows she is being recorded. The training and emphasis changes; with the "abandon[ment] [of] all visual aspects of their performance," the "maximum tonal effect" becomes more important.[40] Some singers experienced more stage fright in front of a phonograph than a concert audience.[41] In short, the studio recording is not simply a copy of a "live" performance; it is something new entirely, with its own "sonic character."[42]

The fallacy of viewing "liveness" as a purer, less mediated form of communication applies beyond the music context. As Sterne himself writes, "the discourse of sound fidelity" in music "is not significantly different from other philosophical accounts of communication that privilege some version of physical and/or metaphysical presence in binary contrast with absence."[43]

One sees these themes played out in heated post-pandemic debates over the role of remote instruction in a university education.[44] I was recently invited to speak on a panel at a faculty Senate meeting at Berkeley on the subject of remote and asynchronous video instruction. As much as the many distinguished educators in the room were admirably open to developing new pedagogical tools, one could feel the anxiety in the room. That anxiety, I think, was a function not primarily of fear of technological change or incompetence but of uncertainty over whether remote instruction would render in-class "live" instruction obsolete or unnecessary. Just as unionized musicians might understandably be concerned about the financial implications of mass sound reproduction on their profession, the professorate might understandably be concerned about the financial implications of mass distribution of asynchronous video lectures. Why do students need to attend class at all?

The point I tried to make on the faculty Senate panel that day was to share the insight I gained from reading Sterne's book. If we think of Zoom or asynchronous instruction as simply a cheaper or more accessible version of an in-class lecture, then remote instruction will inevitably fail. As Sterne puts it in the music context, "[t]hat moment of perfect correspondence" between so-called copy and so-called original "never comes, and, because it never comes, theories of mediation posit sound reproduction as a failure, a sham, and a debasement of a more fundamental live presence."[45] A recent example of this focus on mimicry is the Zoom "immersive view" option, which places Zoom participants in a mimicked physical classroom or conference room environment such that there are students in the "front" and "back" of the classroom or a group of colleagues on one side of an interview table with the interviewee on the other. While these immersive views might end up enhancing some users' experience, the tool is

40. *Id.* at 237.

41. *Id.* at 238.

42. *Id.* at 225. Moreover, with respect to electronic music or DJs, even a "live" performance is a recording, or a mixture of real time instrument playing and recorded music.

43. *Id.* at 285.

44. *See* Lindsay McKenzie, *Students Want Online Learning Options Post-Pandemic*, INSIDE HIGHER ED (Apr. 27, 2021), https://www.insidehighered.com/news/2021/04/27/survey-reveals-positive-outlook-online-instruction-post-pandemic [https://perma.cc/9V4H-GF5X].

45. STERNE, *supra* note 6, at 286.

touted as successful based on its fidelity to a physical meeting or class rather than on whether it is conducive to a good interview or learning environment.

In truth, a Zoom class or video lecture is an entirely different educational experience from the physical classroom or laboratory, with its own originality, authenticity, and set of artifacts. Some of these artifacts may be desirable and offer pedagogical benefits above and beyond the physical classroom.[46] For example, many students learn material from a lecture better when it is not "in person"; they can watch a video at their own pace, repeatedly, without certain distractions.[47] Zoom class also has benefits; one can create randomly selected groups for breakout rooms, avoiding the in-person classroom problem of having discussion groups consisting largely of like-minded people who have chosen to sit together since the beginning of the semester. I myself found that some students were more willing to speak up on Zoom, asking questions in the chat where they had enough time to digest the material and formulate a question, than they were in a physical classroom. There is also an intimacy (not always welcome, of course) that comes from seeing people in their homes with their pets.

The point here is not to argue that Zoom class is superior to a physical classroom or that asynchronous videos are superior to in-person lectures. Rather, it is to point out that Zoom classes or videos are not merely "copies" or mediated versions of a physical classroom or in-person lecture and should not be judged based on their fidelity thereto. Moreover, we don't have to choose between these options. One could imagine creating asynchronous videos for certain material that benefits less from teacher-student interaction (with creative attention checks to incentivize watching) for those students who prefer to learn in that modality, freeing up physical "flipped" classroom time for discussion, problem-solving, and alternative types of experiential learning. Of course, some student work (such as reading) must be done asynchronously, and some (such as laboratory experiments) must be done in a physical classroom. The point is to move beyond a fixation on "liveness" as the one authentic experience against which all other forms of student-teacher communication are judged.

The next section applies these insights from the music and education contexts to the witness confrontation context in the hopes of synthesizing a more meaningful definition of confrontation that also does not artificially fixate on "liveness."

46. *See, e.g.*, Neil Reisner, *I Miss Teaching on Zoom*, WASH. POST (Nov. 26, 2021, 9:37 AM), https://www.washingtonpost.com/opinions/2021/11/26/college-classes-zoom-teaching-benefits/ [https://perma.cc/V8C9-8FXE] (noting several pedagogical benefits of Zoom); Debora Spar, *Today's Awkward Zoom Classes Could Bring a New Era of Higher Education*, EDSURGE (Sept. 10, 2020), https://www.edsurge.com/news/2020-09-10-today-s-awkward-zoom-classes-could-bring-a-new-era-of-higher-education [https://perma.cc/49T4-5K44] (noting the surprising intimacy of Zoom class for some students and instructors).

47. Arrman Kyaw, *Study: Pre-Recorded Videos Prove More Effective for Student Learning Than In-Person Instruction*, DIVERSE (Feb. 26, 2021), https://www.diverseeducation.com/covid-19/article/15108673/study-pre-recorded-videos-prove-more-effective-for-student-learning-than-in-person-instruction [https://perma.cc/BZH4-AYQ3].

IV. BEYOND "LIVENESS": CONFRONTATION AS A RIGHT TO MEANINGFUL SCRUTINY OF THE GOVERNMENT'S PROOF

Armed with the insights from critiques of "liveness" in the music and educational contexts, one can easily see the parallels in the debate over virtual versus live confrontation. The existing debate over COVID-era virtual trials appears to be about the extent to which various forms of "virtual" confrontation (over Zoom, CCTV, behind a screen) are or are not able to precisely mimic the artifacts of "live" confrontation.[48] For example, witness masking, plexiglass barriers, and physical distancing between witness and jury or defendant are challenged because they do not perfectly reproduce what one gets from traditional "live" physical confrontation—a close look at the expressions or beads of sweat on someone's face. Even the outdoor criminal proceedings that took place in some jurisdictions during the 1918 flu epidemic could not replicate the marbled floors and solemn hush of the "real" courtroom.[49] And on those criteria, it is true that such procedures are doomed to fail. If a procedure is only constitutionally adequate as a means of witness confrontation if it faithfully replicates exactly what one does or does not get from traditional pre-pandemic physical confrontation and cross-examination during trial, then most deviations will be inadequate, or only justified as a second-best solution based on exigent circumstances and the unavailability of "live" procedures.

Just as sound recordings and remote instruction should be judged on independent metrics beyond fidelity to "liveness," we should judge the efficacy of various methods of confrontation based on independent metrics beyond fidelity to traditional "live" physical confrontation and cross-examination. The first step in doing so would be to define what we mean by confrontation and what its purpose is. If we take the Supreme Court at its word, "confrontation" is a broader concept than any particular means of exposing witness infirmities:

> Although face-to-face confrontation forms "the core of the values furthered by the Confrontation Clause," we have nevertheless recognized that it is not the *sine qua non* of the confrontation right. *See Delaware v. Fensterer*, 474 U.S. 15, 22 (1985) (*per curiam*) ("[T]he Confrontation Clause is generally satisfied when the defense is given a full and fair opportunity to probe and expose [testimonial] infirmities … thereby calling to the attention of the factfinder the reasons for giving scant weight to the witness' testimony").[50]

The *Craig* Court understood that confrontation is about both *probing* (discovering the existence of) and *exposing* (alerting the factfinder to) the credibility problems of the government's witnesses.[51] In this respect, physical confrontation and cross-examination are simply two methods of discovery and exposure of testimonial infirmities. They are tools of discovery in the sense that the defendant

48. Ayyan Zubair, Note, *Confrontation After COVID*, 110 CALIF. L. REV. 1689, 1693–94 (2022).

49. *See* Jennifer King, *What Did We Learn from the California Courts' Response to the Influenza Epidemic of 1918-1919?*, CAL. SUP. CT. HIST. SOC'Y REV. 1, 2–3 (2021).

50. Maryland v. Craig, 497 U.S. 836, 847 (1990) (citation omitted).

51. *See id*.

might not even realize the witness's infirmities until the witness's in-court demeanor (the beads of sweat) or unsatisfactory answers on cross-examination are on display. And they are tools of exposure in the sense that the factfinder can see the demeanor and hear the witness's answers.

But when information is conveyed in a case through means other than a human witness, such as through hearsay declarants, animals, and machines, other discovery and impeachment methods might be equally or better able to scrutinize those conveyors than "live" confrontation on the witness stand. For example, absent hearsay declarants, in general, cannot be cross-examined; if their testimonial infirmities are to be discovered and exposed, it must be through pretrial discovery and impeachment by extrinsic evidence (such as a witness called by the defense in its own case at trial, or a record of a prior conviction).[52] And yet, such tools are not even statutorily guaranteed, much less constitutionally guaranteed.[53] The same goes for machine or animal witnesses. A machine-learning algorithm, the output of which declares that a person is likely a contributor to a DNA mixture, might well be inaccurate; indeed, in a recent homicide case, two algorithms came to diametrically opposed results from their analysis of the same DNA sample. To probe and expose the potential inaccuracy of the machine's claim, a defendant would obviously be much better off with pretrial access to the machine to test its performance under various inputs, information about the machine's performance, independent software testing of the machine's code, and access to the machine's prior output, than with the ability to put the machine, or its programmer, on the witness stand and look it or them in the eye and ask questions. Again, though, the ability to "confront" a machine's output appears far beyond current confrontation doctrine.[54]

Even in the case of eyewitnesses, physical confrontation and cross-examination may not be the most effective tools for discovering and presenting

52. *See* Watkins v. United States, 846 A.2d 293, 298 (D.C. 2004).

53. *See, e.g.*, *id.* at 298–300 (holding that the Jencks Act does not apply to hearsay declarants and declining to exercise supervisory power to extend *Jencks* to hearsay declarants); Mattox v. United States, 156 U.S. 237, 250 (1895) (upholding a trial court's refusal to allow a defendant to impeach a deceased hearsay declarant with witnesses who would testify that the declarant admitted to lying, though not mentioning the Confrontation Clause); Nevada v. Jackson, 569 U.S. 505, 511 (2013) (holding that the Clause does not guarantee a right to impeach an absent hearsay declarant with extrinsic evidence of a prior false allegation). *But see* Carver v. United States, 164 U.S. 694, 698 (1897) (recognizing a defendant's right to impeach a dying declaration with a prior inconsistent statement, declining to extend *Mattox* to a case "where the defendant has no opportunity by cross-examination to show that" the declarant "may have been mistaken"); Palermo v. United States, 360 U.S. 343, 362–63 (1959) (Brennan, J., concurring) (arguing that *Jencks* had "constitutional overtones" grounded in the "common-law rights of confrontation"); John Douglass, *Beyond Admissibility: Real Confrontation, Virtual Cross-Examination and the Right To Confront Hearsay*, 67 GEO. WASH. L. REV. 191, 240, 240 n.250 (1999); s*ee also id.* at 252, 252 n.315 (recognizing a defendant's right at common law to impeach the declarant of a dying declaration with a prior self-contradictory statement made before she died).

54. *See, e.g.*, Bullcoming v. New Mexico, 564 U.S. 647, 674 (2011) (Sotomayor, J., concurring) (positing that "raw data" from a machine need not be confronted); People v. Lopez, 286 P.2d 469, 479 (Cal. 2012) (holding that gas chromatograph output was not hearsay and thus did not implicate the Confrontation Clause); People v. Wakefield, 38 N.E.3d 367, 371 (2022) (holding that output of a program interpreting DNA mixtures, TrueAllele, did not implicate the Confrontation Clause).

testimonial infirmities.[55] Take, for example, an eyewitness who believes they have accurately identified the person who robbed them. A factually innocent defendant who is mistakenly identified by a witness cannot necessarily expose problems with the witness' credibility simply by looking the witness in the eye and asking him questions on the witness stand.[56] The defendant might more effectively discover and expose the witness' credibility problems by having access to the witness's prior inconsistent statements or the procedures followed during the witness' identification (either by being present or through careful documentation).[57] After all, using beads of sweat, eye movement, and other physically observable markers as a proxy for truthfulness has its own problems,[58] even more so for defendants and jurors who are blind or hard of hearing.[59] And yet, no non-live tools of discovery and exposure of testimonial infirmities are constitutionally guaranteed.[60]

What absent hearsay declarants and machine and animal conveyances of information, and to a lesser extent sincere but mistaken eyewitnesses, have in common is that their infirmities are not rendered more discoverable or exposed or less likely to arise in the first place by virtue of being subject to physical confrontation and cross-examination. Of course, a defendant's ability to scrutinize any witness, even one who is prone to lying and takes the stand, would be

55. Other commentators have noted that existing confrontation doctrine's focus on trial rights, in the form of cross-examination and physical confrontation, is too limited. *See, e.g.*, David Alan Sklansky, *Hearsay's Last Hurrah*, 2009 SUP. CT. REV. 1, 67 (2009) (urging a view of confrontation as "a meaningful opportunity to test and to challenge the prosecution's evidence"); *id.* at 7 (quoting Daniel H. Pollitt, *The Right of Confrontation: Its History and Modern Dress*, 8 J. PUB. L. 381, 402 (1959)) ("The Confrontation Clause could be read broadly to guarantee criminal defendants a meaningful opportunity to challenge—'to know, to examine, to explain, and to rebut'—the proof offered against them."); Paul Giannelli, *Expert Testimony and the Confrontation Clause*, 22 CAP. U. L. REV. 45, 66 (1993) (explaining how the Clause could and should be interpreted to require certain pretrial discovery); Edward K. Cheng & G. Alexander Nunn, *Beyond the Witness: Bringing a Process Perspective to Modern Evidence Law*, 97 TEX. L. REV. 1077, 1091 (2019) (arguing for different forms of confrontation for "process-based" evidence); Erin Murphy, *The Mismatch Between Twenty-First-Century Forensic Evidence and Our Antiquated Criminal Justice System*, 87 S. CAL. L. REV. 633, 657 (2014) (arguing for a broader view of confrontation); Andrea Roth, *What Machines Can Teach Us About "Confrontation"*, 60 DUQ. L. REV. 210, 212 (2022) (arguing for a broader view of confrontation in general, in light of issues with machine proof).

56. Relatedly, a person's out-of-court hearsay statement might understandably be touted as more "authentic" or "real" than their in-court testimony. Take identifications, for example. In-court identifications are notoriously suggestive; to say that the person in the orange jumpsuit sitting at the defense table is the person who robbed you does not require much in terms of inference. That is precisely why rules of evidence typically are so tolerant of admission of prior out-of-court identifications of now-testifying witnesses, without regard to the reliability of the prior identification. *See, e.g.*, FED. R. EVID. 801(d)(1)(C).

57. *See, e.g.*, Jules Epstein, *Cross-Examination: Seemingly Ubiquitous, Purportedly Omnipotent, and 'At Risk'*, 14 WIDENER L. REV. 427, 439 (2009) (arguing that cross-examination is ineffective for scrutinizing eyewitness identifications).

58. *See, e.g.*, Joseph W. Rand, *The Demeanor Gap: Race, Lie Detection, and the Jury*, 33 CONN. L. REV. 1 (2000) (arguing that juror evaluation of truthfulness based on demeanor is affected by race of juror and witness); Daphne O'Regan, *Eying the Body: The Impact of Classical Rules for Demeanor Credibility, Bias, and the Need to Blind Legal Decision Makers*, 37 PACE L. REV. 379 (2017) (arguing for trials in which jurors cannot physically see witnesses, to reduce demeanor bias). *But see* Max Minzner, *Detecting Lies Using Demeanor, Bias, and Context*, 29 CARDOZO L. REV. 2557 (2008) (arguing that demeanor can be probative of truthfulness under certain circumstances).

59. I thank Bennett Capers for raising this question.

60. *See* Pennsylvania v. Ritchie, 480 U.S. 39, 54 (1987).

enhanced through access to that witness's prior statements on the same subject matter. Indeed, that is the very premise underlying the Supreme Court's decision in *Jencks v. United States* and the subsequent Jencks Act, which require defense access to such statements for testifying witnesses.[61] But the fact that some witnesses' infirmities are categorically unable to be meaningfully discovered or exposed through "live" confrontation and that none of the more effective alternative forms of confrontation is constitutionally guaranteed should be a red flag that our current fixation on "liveness" does not adequately protect the values underlying the right of confrontation.

One obvious counterargument to a broader view of confrontation is that the Framers did not intend for the Sixth Amendment to guarantee anything but trial rights.[62] But there are responses to this concern, even from an originalist or textualist frame. First, as others have pointed out,[63] the Sixth Amendment's language uses the term "confrontation," not "cross-examination."[64] If "confrontation" nonetheless includes cross-examination because such questioning is critical to witness scrutiny, why not other equally critical methods? Second, cross-examination was not, in fact, a universally guaranteed right at the time of the Founding;[65] Sir Walter Raleigh's complaint was not that he was unable to question Lord Cobham but simply that Cobham should accuse him to his face.[66] Indeed, only later, as strict competence rules were abandoned and the lawyerly profession gained prestige and influence, did cross-examination become a staple of trials and take the place of the oath as a guarantor of trustworthiness.[67] Meanwhile, there is historical precedent for guaranteeing nonlive confrontation methods; for example, English defendants well before the Founding had access to prior statements of witnesses for use in potential impeachment.[68]

61. *See* Jencks v. United States, 353 U.S. 657, 668–69 (1957) (exercising supervisory power to hold that a defendant has a right of access, without a showing of materiality, to any prior statement of a testifying government witness on the subject matter of his testimony). The *Jencks* case was superseded by the Jencks Act, 18 U.S.C. § 3500 (requiring disclosure of "substantially verbatim" prior statements of testifying witnesses on the same subject matter).

62. *See* U.S. CONST. amend. VI.

63. *See, e.g.*, Sklansky, *supra* note 55, at 7.

64. U.S. CONST. amend. VI.

65. *See, e.g.*, Bernadette Meyler, *Common Law Confrontations*, 37 LAW & HIST. REV. 763, 772–73 (2019) (citing examples of unconfronted pretrial examinations being offered in American colonial trials in lieu of a witness's live testimony and criticizing the Supreme Court for relying exclusively on Old Bailey proceedings in concluding in recent confrontation cases that *ex parte* affidavits of nontestifying declarants were inadmissible by the time of the Framing); *cf.* Frank R. Herrmann & Brownlow M. Speer, *Facing the Accuser: Ancient and Medieval Precursors of the Confrontation Clause*, 34 VA. J. INT'L L. 481, 489, 537–40 (1994) (discussing Roman and medieval continental confrontation and noting that during Hadrian's reign, as well as in France, defendants had a right to be present and physically confront accuser, but not cross-examine).

66. Herrmann & Speer, *supra* note 65, at 545.

67. *See generally* Kellen Richard Funk, The Lawyer's Code: The Transformation of Legal Practice (2018) (Ph.D. dissertation, Princeton University) (discussing the nineteenth century rise of cross-examination); WENDIE ELLEN SCHNEIDER, ENGINES OF TRUTH: PRODUCING VERACITY IN THE VICTORIAN COURTROOM (Yale Univ. Press) (2015) (same).

68. *See* JOHN H. LANGBEIN, THE ORIGINS OF ADVERSARY CRIMINAL TRIAL 15, 41 n.156, 42 n.157 (2003) (noting that, in pre-Founding England, defendants had access to transcripts of witnesses' pretrial examinations for potential impeachment use).

The fact that committed originalists like Scalia have interpreted the Sixth Amendment to require cross-examination, even without a historical precedent for such a right, shows that originalism is either highly malleable or consistent with recognizing new confrontation needs as testimony changes over time.[69] In fact, scholars in other contexts have argued that originalists are, and should be, open to interpreting constitutional provisions in ways that maintain the same ratio of state to citizen power that existed at the founding, even in the face of technological changes.[70] If that is so, then confrontation in an era of artificial intelligence should be interpreted to include effective ways to scrutinize machine as well as human witnesses, including non-"live" confrontation, "lest we gradually recreate through machines instead of magistrates the civil law mode of ex parte production of evidence that constituted the 'principal evil at which the Confrontation Clause was directed.'"[71]

Even if constitutional confrontation doctrine never catches up with the realities underlying modern proof by acknowledging the need for nonlive methods, there is still much that Congress and state legislatures can do to avoid the fallacy of using "liveness" as a baseline and to better protect a defendant's ability to meaningfully scrutinize the government's proof. Key reforms would include expanding the federal Jencks Act to apply to hearsay declarants;[72] encouraging state legislatures to adopt analogs to the Jencks Act; amending federal and state rules of evidence to allow defendants to impeach absent hearsay declarants with extrinsic evidence where such impeachment would be allowed on cross-examination had the declarant testified live;[73] allowing access to information necessary for meaningful scrutiny of machine evidence, as set forth in the pending Justice in Forensic Algorithms Act of 2021;[74] and adopting eyewitness identification procedures and enforcement mechanisms through the rules of evidence, similar to those adopted by the New Jersey Supreme Court.[75]

Another obvious counterargument is that in-person confrontation at trial is, in fact, a critical aspect of confrontation for dignitary as well as accuracy reasons. After all, even if prior statements or extrinsic evidence are helpful to witness scrutiny, so is looking someone in the eye and witnessing their demeanor, which might be more difficult over Zoom. This may be true as far as it goes, although one might argue that Zoom testimony holds unexpected advantages even in this

69. *See, e.g.*, Crawford v. Washington, 541 U.S. 36, 68 (2004).

70. *See generally* Orin Kerr, *An Equilibrium-Adjustment Theory of the Fourth Amendment*, 125 HARV. L. REV. 476 (2011) (arguing for such a theory, both descriptively and normatively).

71. People v. Lopez, 286 P.3d 469, 494 (2012) (Liu, J., dissenting) (quoting Crawford v. Washington, 541 U.S. 36, 50 (2004)).

72. *See* Roth, *supra* note 55, at 222.

73. *See id.* at 224. Thus, for example, a defendant would have a statutory right to impeach an absent hearsay declarant with extrinsic evidence of specific instances of conduct probative of truthfulness (such as an arrest for perjury or an undisputed prior false allegation to police), which could be inquired into on cross-examination if the witness had testified. *See, e.g.*, FED. R. EVID. 608.

74. *See id.* at 223 (discussing the Justice in Forensic Algorithms Act of 2021).

75. *See id.* at 224, 224 n.71 (discussing State v. Henderson and New Jersey's adopted framework).

regard.[76] Beyond being used to scrutinize the accuracy of a witness's claims, physical confrontation might have important dignitary or legitimacy interests if the defendant or the public wants to see the accuser have the moral courage to look the accused in the eye before he is convicted.[77] If these interests are what we seek to advance through confrontation, then there is, in fact, something we get from having a programmer on the witness stand. But assuming we also want the accused to have a meaningful opportunity to scrutinize the machine's output, we cannot rely solely on physical confrontation and cross-examination at the trial of a human accuser as our methods.

In fact, if there are aspects of in-person physical presence in criminal proceedings that are critical to criminal justice, we might be more likely to be successful in treasuring and protecting them if we are precise about why they are important rather than relying on artificial ideas of "liveness" as an inherently purer, less mediated experience overall. For example, it may be that the physical proximity of an accused person's friends and family, even with the odd trappings of the courtroom, offers critical emotional support that cannot be guaranteed otherwise and that we deem necessary to a fair trial.[78] Or that physical proximity of a judge to a defendant in the same room renders outcomes more defendant-friendly, and thus videotaped bail or immigration hearings raise fairness concerns.[79] But in making these arguments we should also be aware of the potential chilling and silencing effect of physical presence[80] and the artifacts of the courtroom.

V. CONCLUSION

The points I have tried to make in this Essay are as follows. First, "live" physical confrontation and cross-examination at trial, like "live" music or classroom instruction, is a mediated experience with its own set of artifacts. There is no pure, unmediated form of confrontation, music, education, or social interaction. "Liveness" as a concept does not exist except as a baseline against which to judge modalities that do not precisely replicate the particular artifacts of a concert hall, courtroom, or physical classroom. But to treat liveness as a baseline assumes that the concert hall, courtroom, or classroom is somehow authentic in a way that

76. For example, participants in this symposium helpfully pointed out that jurors looking at a witness on a screen rather than in a physical courtroom are at least forced to see the same angle of the witness and experience the testimony in a more uniform way. Symposium, *The Law of the People? Rethinking Criminal Justice Through Virtual Spaces*, 2022 U. ILL. L. REV. 1325.

77. *See generally, e.g.*, Erin Sheley, *The Dignitary Confrontation Clause*, 97 WASH. L. REV. 2017 (2022) (arguing that the Clause protects dignitary, and not merely accuracy, interests).

78. *See generally, e.g.*, Jocelyn Simonson, *The Criminal Court Audience in a Post-Trial World*, 127 HARV. L. REV. 2173 (2014) (explaining the importance of the audience in various modern criminal proceedings).

79. *See generally, e.g.*, Ingrid Eagly, *Remote Adjudication in Immigration*, 109 NW. L. REV. 933 (2015) (conducting an empirical study of remote deportation hearings and explaining that in-person hearings had more detainee-friendly outcomes).

80. Indeed, this was the very premise of *Craig*—that physical proximity to the defendant would interfere with the victim's ability to render truthful testimony. *See* Maryland v. Craig, 497 U.S. 836, 852–53 (1990).

the studio, pretrial discovery, or Zoom class is not. Both are authentic, though different.

Second, virtual, recorded, nonlive experiences have their own set of advantages and disadvantages; they should not be judged simply by the extent of their fidelity to liveness. In the confrontation context, nonlive forms of confrontation might actually be preferable or necessary in a given case to meaningfully scrutinize the government's proof, especially with respect to witnesses who cannot be physically confronted, such as absent hearsay declarants, machines, and animals. Even testifying humans, like sincere but mistaken eyewitnesses, would often benefit more from "virtual" forms of confrontation. While we should be vigilant in ensuring that physical presence is a part of our system where necessary to render justice, we should not allow an artificial fixation on liveness to guide us.

Ultimately, we will have to do a fair amount of difficult threading of the needle to acknowledge the benefits of virtual technology without creating incentives or arguments for overusing technology in ways that cheapen, rather than enrich, criminal adjudication. When the Conference of Chief Justices and State Court Administrators jointly urged that the system should "move as many court processes online as possible" even after COVID and that the pandemic was the "disruption that courts needed" to "reimagine" the system,[81] they arguably fixated on virtual proceedings as a new baseline in a way that is equally artificial and problematic. But the alternative to doing the hard work of reimagining is to keep an old, path-dependent, pre-pandemic system that fails to offer defendants the tools they need to meaningfully scrutinize proof in a post-pandemic, machine age.

81. CONFERENCE OF CHIEF JUSTICES AND CONFERENCE OF STATE COURT ADMINISTRATORS, GUIDING PRINCIPLES FOR POST-PANDEMIC COURT TECHNOLOGY, 1, 7 (July 16, 2020).