

Critical Studies in Improvisation Études critiques en improvisation



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Raymond MacDonald and Ross Birrell

Volume 14, Number 2-3, 2021

Improvisation, Musical Communities, and the COVID-19 Pandemic

URI: <https://id.erudit.org/iderudit/1080719ar>

[See table of contents](#)

Publisher(s)

University of Guelph College of Arts

ISSN

1712-0624 (digital)

[Explore this journal](#)

Cite this document

MacDonald, R. & Birrell, R. (2021). Flattening the Curve: Glasgow Improvisers Orchestra's Use of Virtual Improvising to Maintain Community During the COVID-19 Pandemic. *Critical Studies in Improvisation / Études critiques en improvisation*, 14(2-3), 1–7.

Article abstract

Musicians/academics Raymond MacDonald and Ross Birrell discuss the technological challenges and affordances of improvising over Zoom with the Glasgow Improvisers Orchestra.

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Flattening the Curve: Glasgow Improvisers Orchestra's Use of Virtual Improvising to Maintain Community During the COVID-19 Pandemic

Raymond MacDonald and Ross Birrell

This article documents experiences of Glasgow Improvisers Orchestra's virtual improvisation sessions during the COVID-19 pandemic via a critical overview of process and two films.

Introduction

On March 23, 2020 the UK Government announced a national emergency in the face of the COVID-19 pandemic. In order to help the National Health Service (NHS) cope with the growing number of people who would potentially require intensive care treatment, a policy of “social distancing” was implemented requiring people to stay at home with the aim of “flattening the curve” of the pandemic. For musicians, one of the consequences of enforced physical distancing was the inability to rehearse, record, or perform with anyone outside their home. Under these new conditions, members of the Glasgow Improvisers Orchestra (GIO), a large improvisation ensemble with a flexible membership of approximately twenty-five individuals, began improvising together using Zoom software as a means of maintaining their musical community. Musicians experiencing similar lockdowns in other parts of the world were also invited to take part. Sessions were held for two hours twice weekly and developed to include an international group of over seventy musicians, all of whom were living under conditions of physical distancing.

During lockdown around the world there was an explosion of interest around online collaborative music making as a way of facilitating musicians' desire to stay connected and disseminate their work, and as a means of generating income when other income streams had ceased. Many of these examples involved musicians pre-recording and editing individual parts together to create a finished product. This way of working overcomes some of the technical issues involved in virtual real time music making and, when presented, can also create the illusion of people playing together in real time. However, the approach of GIO in the *flattening the curve* sessions significantly differed from such approaches that seek to overcome or erase the conditions of mediation. Improvisation, as a real-time collaborative-creative process, facilitates in-the-moment interaction and allows all emergent features of interactions to be incorporated into an ongoing evolving creative milieu.

By remaining indoors and performing via the video conferencing software Zoom, GIO musicians were playing their part in a wider collective project of “flattening the curve.” However, the title, *flattening the curve*, is not simply a reference to the conditions of lockdown under which it was performed. It also points to a parallel between a strategic response to a pandemic and an approach to improvisation. The title acts as a reference to the “face on” conditions of performing over Zoom. Ordinarily, in a physical rehearsal room, musicians will arrange themselves in a circle or semicircle. Sitting in a curve, they will have only a partial view of their immediate neighbours and will be directly face to face with a limited number of musicians at any one time. This curved arrangement can affect the emergence of musical relationships (duets, trios, etc.) that form in each improvisation. In a Zoom session, each musician is directly face to face with all of the others (gallery view) or has only a fleeting glimpse (“active speaker” view) of their fellow musicians. In addition, where ensembles will often arrange themselves in such a way as to foreground one or more members of the group in non-virtual settings, participants in a Zoom ensemble occupy equal amounts of visual space in the frame. The software also limits the number of instruments that can be heard at any one time and therefore has an influence on the narrative developments of the improvisation. Hence, “flattening the curve” refers to three key elements

combined in the project: the social conditions of the performance, the spatial configuration of the virtual encounter, and the general approach to the structure of improvisation.

Methodology (entanglement and attunement)

“... what is needed is a method attuned to the entanglement of the apparatuses of production.” (Barad 30)

While the sessions began with the aim of maintaining an established musical and social community, they quickly developed into a means of producing new and innovative work. The latency attached to all internet conferencing software did not hamper the interactions. Rather, it was incorporated as an emergent feature of the improvisation. Another feature of Zoom software is that it restricts what is heard with only a limited number of sound sources being audible at any one time. This has significant implications for larger ensembles attempting to use Zoom. However, rather than regarding this “thinning out” process as a limitation of the medium, an unwelcome impedance or interruption, GIO incorporated it as an active element of the improvisation. In a similar fashion, the viewing options of Zoom were incorporated into the recording and video editing. In this way, the algorithms and affordances of Zoom formed part of the process and final recording—a live Zoom recording as distinct from a pre-recorded *room* recording.

The sessions presented a unique way of experiencing improvisation. The Zoom context produces a flattening or an equalization; in “gallery view” performers are arranged on the screen in a grid formation, each occupying the same size of frame with equal opportunities to influence the ongoing interaction. A further difference from the context of “room recordings” was the ability of performers in Zoom recordings to interact visually with the screen by performing *with* rather than simply *to* the computer camera by, for example, manipulating the virtual background option. Every participant functions as performer, viewer, and listener; sometimes all at one time.

Another important feature of the improvisation sessions was that individuals could choose which particular hardware to use. Some participants chose to use external microphones, speakers, and digital interfaces where others used the inbuilt speakers and microphones on their devices—sometimes a laptop and in some cases a smartphone. This made sessions more accessible. Because participants could use whatever technology they were comfortable with, they were allowed fuller and more immediate ways to engage with the musical, creative, and social aspects of the interactions. This was another reason for selecting Zoom, as it is widely regarded as an accessible and easy-to-use platform. Had we used other platforms or specified technical requirements, people not comfortable with technology may have been excluded, or would have at least experienced significant difficulties in fully engaging. As it was, every participant could access the session within seconds via one or two clicks. This was an important factor in the success of the sessions.

The Zoom sessions were documented by recording a single take for each improvisation. The adoption of such a single “long take”—a method which Pasolini regards as reflective of the “present tense” of cinema (3)—as a method of recording improvisational music reflects the condition that improvisation is music in the present tense.¹ The visual interface of this present tense experience in Zoom is principally twofold, with participants joining in the default “active speaker view”—where each speaker occupies the full frame of the screen with other participants visible in a limited number of thumbnails—or selecting a “gallery view” option—whereby participants appear equally scaled in grid formation [Figures 1 & 2].²



Figure 1 – Glasgow Improvisers Orchestra (GIO) and Ross Birrell, *flattening the curve* #4, 18 April, 2020. <https://vimeo.com/421448635>

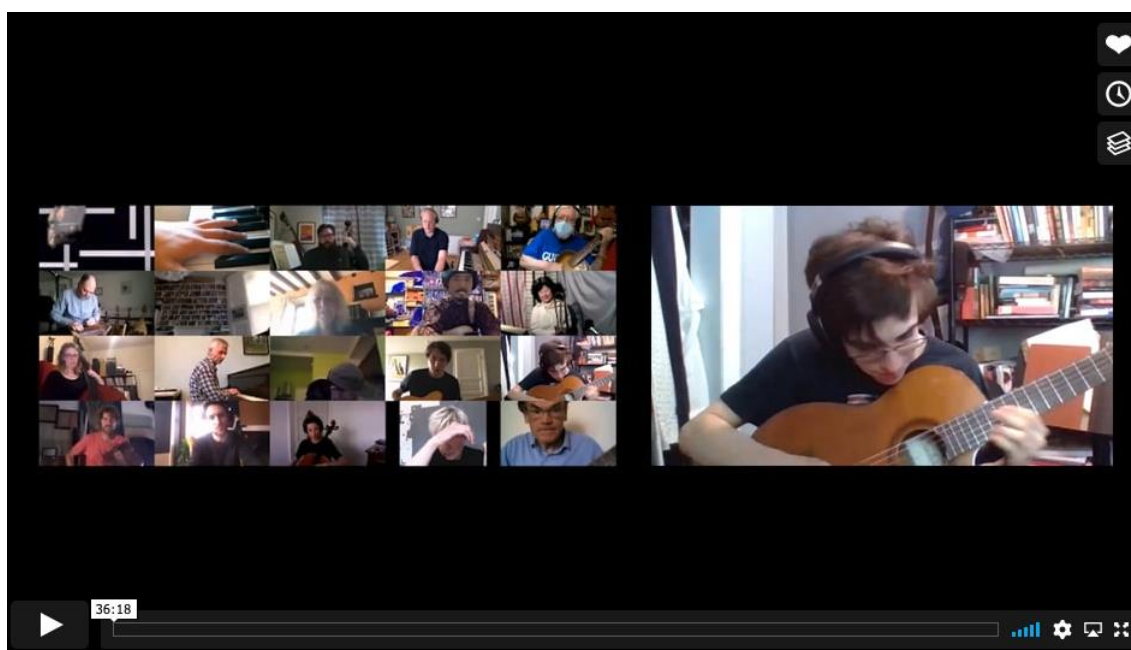


Figure 2 – Glasgow Improvisers Orchestra (GIO) and Ross Birrell, *flattening the curve* #11, 12 May, 2020. Part 1: <https://vimeo.com/426398038>

As outlined above, a key feature of Zoom's room recordings is that participants have the option of adjusting their visual appearance by selecting a virtual background which can produce a dynamic relation of the human figure merging with or dissolving into their selected virtual background like miniature icons of the digital screen age [Figure 3]. In both audio and visual editing (selecting short film extracts from longer sessions, moving between gallery, speaker or "pin" view functions, postproduction and credits) the software effectively became a "non-human collaborator," in Bruno Latour's terms: an equal *actant* in producing the final recording (174–215).

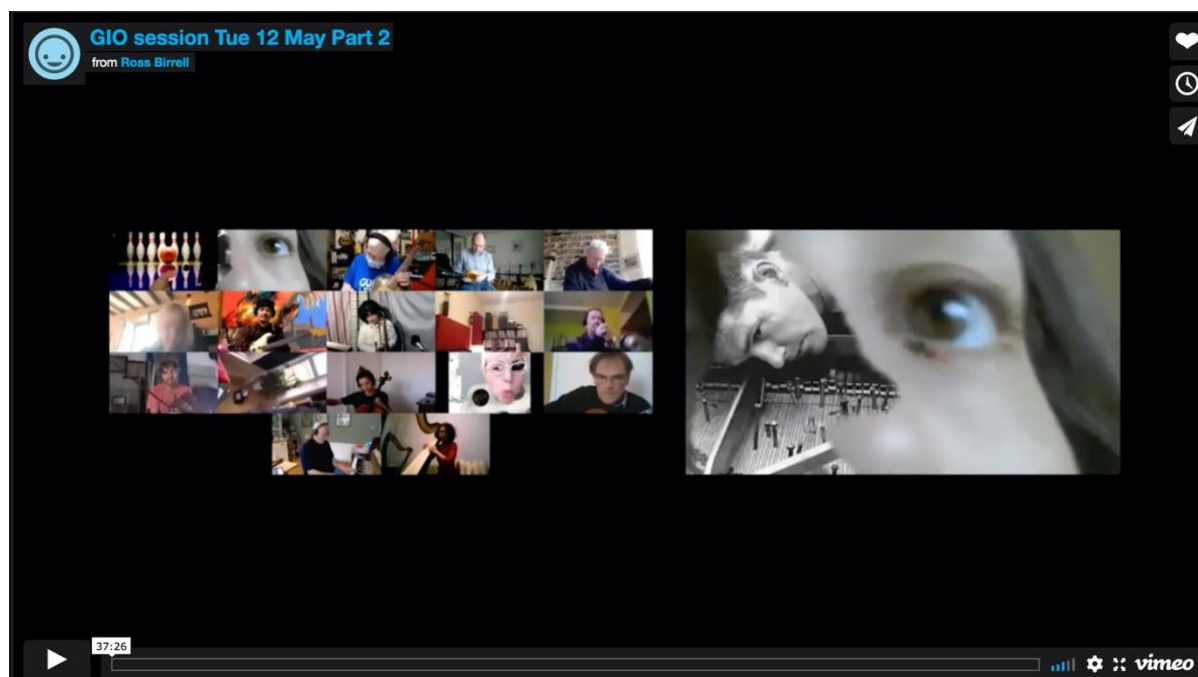


Figure 3 – Glasgow Improvisers Orchestra (GIO) and Ross Birrell, *flattening the curve* #11, 12 May, 2020. Part 2: <https://vimeo.com/426408582>

With these technical contexts and conditions in mind, it is our contention that, in addition to providing a vital platform to maintaining a musical community in the midst of a global pandemic, this project integrated the open principles of free improvisation with what might be regarded as the performative agency of Zoom software itself. The GIO recording sessions represented, therefore, a process of attunement or acclimatization to the latency and selectivity of sound and image in Zoom software. In effect, *flattening the curve* witnessed the production of a series of recordings of musical performances “surrendered to artefacts or algorithms;” that is to say, “the given” of contemporary communication software (Serres, *Five Senses* 344).³ As such, the methodology adopted in the *flattening the curve* project resonates with wider theoretical and philosophical concerns associated with the posthuman condition—particularly in the context of the writings of Bruno Latour, Michel Serres, and Karen Barad—in that GIO adopted a method attuned to the entanglement of musical free improvisation as a social-material practice with Zoom as an apparatus of audio-visual connectivity and production.⁴

Improvisation and Community

MacDonald and Wilson (2020) propose that improvisation proceeds via a series of ongoing creative psychological decisions about when to start, when to stop, when to introduce new ideas, and when to change ideas. Since these decisions operate at the collaborative, creative, and social levels, this conception of improvisation incorporates all the elements of online improvising, including musical and visual decisions. This is one reason why online improvising of this nature can help sustain and develop musical communities.

Improvisation is a means of overcoming some of the problems that lie at the heart of physical distancing. We say “physical distancing” rather than “social distancing” because the online improvising sessions allow social distances to be reduced: people can “be together” in the music. The emphasis in improvisation on real-time decision making, collaboration, and listening may help maintain a sense of community during lockdown. In the GIO, we already had an established mode of practice and an established network of members with a shared social and creative history. This history of working together was brought into the virtual

space during the sessions and quickly helped establish cohesive group dynamics. However, by extending invitations to musicians around the world, we opened up the creative environment to another 40 individuals or more. Engaging with the idiosyncrasies of Zoom also meant that new types of improvisational practice started to develop.

MacDonald and Wilson (2020) also propose that engaging in improvisational activities in appropriate contexts may provide health benefits.⁵ The GIO online improvisation sessions have some key elements that may have influenced why these sessions helped to sustain a sense of community during lockdown. For example, the online sessions involved sophisticated social, creative, and technical negotiation. Creative choices about when to play, whom to interact with, when to listen, when to stop, how loud to play, and when to introduce new material must be made in this and all improvising contexts. These decisions are undertaken regardless of the experience individuals have with online improvising. Therefore, when engaged in group improvisation, all participants are faced with the same types of decisions (albeit with different material). These choices echo those made in daily life: when to enter a conversation, when to listen, when to develop a new point or extend one that has already been made, etc. Communicating in groups is a fundamental aspect of life involving real-time nuanced decision-making. Reading non-verbal cues, anticipating consequences of actions, and developing empathy and interpersonal understanding are ubiquitous everyday social tasks (MacDonald and Wilson, *The Art of Becoming*).

Online improvising is therefore a particularly sophisticated type of socially-mediated artistic collaborative endeavor. This way of conceptualizing improvisation emphasizes psychological and group processes rather than acoustic parameters and musical structures (MacDonald and Wilson, “Billy Connolly”). Rather than viewing improvisation as a rarefied form of musical communication, open to the initiated few who have developed advanced technical skills and musical knowledge, improvisation can be conceptualized as an accessible universal social activity. Improvisation also provides a means for abstract expression of emotions and an opportunity for creative cognitive and social engagement (MacDonald et al., *Music*). Importantly, while the processes of improvisation are universally accessible, only those with access to internet technology would be able to take part in the type of virtual improvisation discussed here.

Coda on the curve

“Our living and inventive path,” wrote the philosopher Michel Serres, follows a “fringed, capricious curve”:

We are surrounded by noise. And this noise is inextinguishable. It is outside—it is the world itself—and it is inside, produced by our living body. We are in the noises of the world, we cannot close our door to their reception, and we evolve, rolling in this incalculable swell. We are hot, burning with life; and the hearths of this temporary ecstasy send out a truceless tumult from their innumerable functions. If these sources are stilled, death is there in the form of flat waves. Flat for recording, flat for closed ears. In the beginning is the noise; the noise never stops . . . (Serres, *The Parasite* 126–27)

It is important to add a coda that, in the context of musical improvisation, *flattening the curve* has nothing to do with attempts to arrive at a flat or flattened-out socio-musical experience. In fact, in its open methodology, free improvisation is diametrically opposed to forms of music which attempt to eradicate chance, noise, or perceived “interruptions.”⁶ Rather, it is a project which follows the “fringed, capricious curve” of free improvisation.

Notes

¹ For more on improvisation as “the present tense of music,” see Rajeev S. Patke, “Benjamin on Art and Reproducibility: The Case of Music,” in Benjamin, p. 196.

² A further option of “pin” video was useful in live editing during the sessions.

³ Arguably such an approach brushes against the grain of the intention of the software itself, with Zoom stating that “Ideally participants do not know the technology is there” (“Acoustics”).

⁴ It should be recognized that such a method of improvisational attunement with the latency of telecommunications software—which might be regarded, in a fusion of Donna Haraway and Karen Barad, as a form of *cybernetic entanglement*—rests upon the processing and encoding of audio waves into electronic data and the active agency of the software evokes a key principle of virology, one which plays a significant role in the understanding of the spread of coronavirus: *signal transduction*. See for example He, et al. and Magro.

⁵ For a detailed discussion of the health benefits of the GIO Zoom improvisation sessions see MacDonald et al., “Our Virtual Tribe: Sustaining and Enhancing Community via Online Music Improvisation.”

⁶ For Gary Peters, musical free improvisation exemplifies Niklas Luhmann’s definition of art as the “emancipation of contingency” (69).

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