The essential guide to playing and creating music online together

REBEKAH WILSON

Book Review:
Networked Music Performance: Theory and Applications
Miriam Iorwerth
London: Focus Press, 2023

When we think about Networked Music Performance we think about distances—often, great distances, like across continents and oceans. Miriam Iorwerth, the author of the recently published book Networked Music Performance, Theory and Applications has lived in some of the world’s most remote places: the Halley Research Station in Antarctica, the South Georgia & Sandwich Islands, and the Scottish Highlands, where she lectured in music at the University of the Highlands. Though a (slow) train line now connects the Highlands to Glasgow, in extreme weather the Highlands may as well be in the middle of the South Atlantic. Fittingly, Miriam has a Ph.D in Networked Music and currently holds the role of Digital Development Manager at Glasgow’s Royal Conservatoire of Scotland.

Iorwerth’s new volume on networked music is ideal for those interested in introducing Networked Music Performance (NMP) into their curriculum; it is also suitable for musicians interested in learning more about how they can improve their practice of working with other musicians online with both file-based and streaming workflows. The book serves as both an introduction to NMP—covering its history, present-day approaches, the technology, and the cultural considerations—and, critically, a practical overview of synchronous, asynchronous, and hybrid workflows in use today.

Miriam and I jumped on a video call in January so she could tell me more about the book, where, learning more about Miriam’s background, it became clear why she invested so deeply in the material. As someone who has always admired the intrepid, I was happy to learn that she had worked in Antarctica, overseeing a radar that observed the upper atmosphere. Her next post was in the slightly-less-isolated South Georgia and Sandwich islands, though after that she found a teaching position in the Scottish highlands, still retreating further from any metropolis. We reflected on her isolation on the seventh continent, South Atlantic islands, and Caledonian mountain ranges, and how it influenced her view on technology’s ability to forge human connections. For Miriam, as a musician, educator, scientist and world traveler, network music technology is an accessible tool for musician expression. In our interview she emphasizes how democratic NMP is as a platform for engagement, where a low-tech approach can be as successful as a high-tech one and despite minimal physical interaction, strong musical and personal bonds can be formed. Notwithstanding the additional benefits for those concerned with disability, caregiving, immigration and migration, and environmental benefits, working remotely with music is an opportunity to explore and expand creativity. When the discussion turned to her research on how musicians use video communication during performance, she highlighted her findings on the discrepancy between perception of video as critical tool, and the actual behavior of musicians: we both agree that ongoing creative research and experiments are needed regarding how we visually represent ourselves, and algorave/live-

1 Source Elements, rebekah@source-elements.com.
coding approaches are appealing as a way of highlighting the digital environment itself as a visual aspect. Given the absence of large-scale remote performances in music concerts or classical theaters, Miriam’s publication may be a critical step towards NMP’s acceptance and implementation within the wider cultural arena.

Miriam and I jumped on a video call in January so she could tell me more about the book. The following interview is a reprinted transcript from Source Elements.²

Rebekah: How did that happen? It’s a lot of work.

Miriam: How did that happen? I was at an online conference during COVID and someone from Routledge sent me an email and said, do you fancy writing a book? Ooh! And then I thought about it a little bit more and thought, actually, do you know what, there isn’t another book like this. And nobody else is writing one, so why not do it?

It’d be a fun project. So from a very basic level, that’s where it came from. But I suppose also the kind of thinking around it was, I’ve been working with students, since around 2011, then I started doing the network stuff. But there was no textbook around it.

And for educators, especially at the university level, the first thing you do is find resources. What are the resources around this? And there pretty much weren’t any. So I was kind of gathering all this information and so it’s a combination of the research from the Ph.D, it’s combination of the resources that I’ve gathered over the years, but also I suppose the questions that I got asked during COVID about how do you actually do this from musicians?

And there’s no quick answer to that, is there? It’s not just that here you go, have an A4 fact sheet, that will get you started. There’s so many variables, and as I was saying before, there’s that whole spectrum of using your phone to the kind of stuff that you do actually, which requires more of an understanding of the kind of network side of things.

So I thought, well, that’s the way to do it. Put it in a single resource, but then of course as you start doing it, you’re like, gosh, where do I start? Or where do I stop, I suppose? And I suppose I found that cultural side of it and that idea of networking from the human side of things, that’s I guess what I find the most interesting.

Rebekah: Absolutely. And the content of the book—so you go through synchronous network music performance, which is probably mostly what we were talking about today. And then asynchronous performance, which is songwriting, collaborating, you know, asynchronously and using file sharing and those kinds of things. Online music teaching, which is another important one. I guess that also involves rehearsals. And accessibility, plus you go through sound engineering, the available tools in an abstract way. So the book’s going to have a very long life as well.

I felt after reading it that if I had come to this with nothing, I would leave feeling like, okay, I’ve got a good base of how I can work with networked music as an educator or as a musician or as a student. Thank you so much for writing it.

Miriam: Well, thank you for reading it and thank you for reviewing it. It was a big, I mean, from an entirely personal point of view, it was a big, big thing to take on. I’m kind of glad it’s over in terms of my free time, but you know what it’s like. As soon as there’s a vacuum for time, something else fills in.

Rebekah: Absolutely. What did you feel that you personally got out of all that writing and that research? How did it change your view on the world, the network music world?

Miriam: I think actually a big thing was around that gatekeeping idea of actually what does network music performance mean. And I felt quite strongly that the asynchronous stuff did need to come into it. Because, actually, when you start trying to define these things, that is a big thing.

When you have to put something down on paper and commit to it, trying to actually define what these things mean is really difficult. So if you think, right, okay, well, it’s fairly obvious, isn’t it? Synchronous, you’re working in time with one another. Ah, but then you’ve got latency.

So suddenly, actually, it’s not actually synchronous. It becomes—if you’re being really technical about it—it becomes asynchronous. So what’s the cutoff point for that? So I’ve had to categorize things, I’ve had to say, well, synchronous is where you’re effectively working in time with one another, sort of in real-ish time.

Rebekah: I use the phrase near-real-time. It’s a phrase that we like, you know, it’s like you’re reacting. In your physical real-time, but you’re receiving information a little bit delayed. Something I really like is that neurologically we live in the past: our brain processes information and then it gets sent to our cognitive functions. But it takes time to do that and there are always delays. So music is faster than sight so the brain delays sound so that it syncs up in our brain with what we’re seeing because it knows the latencies inside our brain. Right? It’s fascinating. So when we’re thinking about latency, you know what, half-a-second latency is nothing. The brain can handle that. I can culturally adjust to that.

Miriam: And actually if you look at the research around latency in music, if you ask a chamber musician, for example, because they’re very much about their ensemble, how much latency there is, they say “Oh, well, there isn’t any.” But actually 30 milliseconds latency is considered an average in terms of synchronicity between musicians. But they don’t perceive it. So when you then look at the kind of latencies around network performance, suddenly it becomes actually, do you know what, 30 milliseconds, that’s quite a long time.

Rebekah: You know, if you’re in a brass band on a football field, right? I mean, look at the latency between the tuba and a percussionist. And don’t percussionists in orchestras play earlier so that they get it out on time?

Miriam: As a young percussionist, nobody told me that. And so I was constantly out of time. I remember I was in a youth orchestra and the conductor’s wife taught me, she was a percussion teacher, so the conductor didn’t really know many people’s names but he knew my name because I used to go to his place for lessons. So he would absolutely shout at me as my triangle note was far, far too late.
[On working in Antarctica]

We used to have these monthly meetings with our managers. They were back in Cambridge, that was where the base was. And it just kind of tickles me sometimes when there’s this conversation about remote working and, oh, how it doesn’t really work. My boss was like 10,000 miles away. And I mean, there was a huge delay over the satellite connection, but it worked fine. I think there is a connection there. Definitely.

[back to the topic of NMP]

For me, it’s much more about the connection, it’s about the networking in the wider sense rather than the computer sense. That’s the important thing. So, yes, you can do it in a highly technical way, but actually you can also do it in a really straightforward way. And obviously that’s then to connect it with the music that you play and how you approach it.

I suppose also it’s about exposure, and if we can expose our students to these different approaches, because it’s not a different type of music, or even a different way of playing, it’s just an approach and a sort of the way you think about music, the way you think about time, for example, in the musical sense.

And so that idea of time and rhythm is so completely, excuse the pun, drummed into you. Then, maybe slightly separating that from the idea of what ensemble music is, I think it’s probably one of the stumbling blocks. Anyway, if you’d been taught that ensemble means playing exactly in time with one another, then to kind of shift away from that. It’s nothing to do with technology, is it? It’s to do with the music itself.

Postscript: Miriam and I did meet in person and indeed, became friends during a wintery highlands escape buffeted by winds, waterfalls, and warmed with whiskey.