Distributed Synthesis - Milestone 2

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Abstract

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Abstract

Browser-based distributed synthesis is a novel, lithe technique for co-located networked music performance that leverages the ubiquity, connectivity, and computational capacity of our personal devices to achieve multi-channel sonic works. It continues a lineage of historical networked and participatory music performance practices that make use of contemporaneous technology to agitate hegemonic, commodified forms of music performance ritual. The paradigm repurposes the substrate of the internet as its artistic materials, aligning the practice with the educational project of creative coding, and entangling it in the messy problematics of surveillance and platform capitalism. This research employs a critical posthumanist frame to clarify an ethical position from which creative work can be produced in this arena, with particular focus on the themes of texture, ritual, and emergence.

Introduction

The purpose of this document is to articulate a literature review that situates distributed synthesis within the confluence of a set of material-discursive cultural practices which includes *synthesis*, *creative coding*, *networked and participatory music*, and *phone art*. The histories of these practices are predominately discrete, but have overlapped, bifurcated, and converged at certain moments in sometimes surprising ways.

To clarify what is meant by a "material-discursive cultural practice", we might understand synthesis, for example, to denote not merely the production of an audio signal comprised of fluctuating voltages in a wire, but also both the productive practices that give rise to various material forms of the synthesiser, and the various uses of those material forms in production of expressive cultural forms. Similarly, we might understand creative coding to denote not merely the production of specific pixels of particular colours on a screen (for example), but also both the cultural practices which scaffold audiences to experience creative

coding as *expressive* in some way, *and* the productive practices that give rise to the various programming languages, computing hardware, and educational resources etc. – the material forms on which those cultural practices are predicated.

My use of the word "expression" here should be scrutinised. As I will argue in a later chapter, when used in the context of creative cultural practices, "expression" denotes the construction of a mirage - an unalienated human subject - the performer or artist, as percieved within the context of some ritualistic cultural infrastructure. This image then acts as a nexus, an interface for inference between a semantic field of representation, and a pragmatic field of possibility. There is a lot to be extrapolated in dynamic, but for the moment I think it is important that we are able to understand *expression* to be fundamentally entangled with implicit notions of *work*, in its non-economic sense.

I bring these notes forwards into the literature review so that we can give these material-discursive cultural practices their properly ecological standing - it is not possible for the history of synthesis, nor the history of computing (creative or otherwise), to be understood as a succession of white male inventors who made great discoveries by scouring the internal resources of their own, encapsulated genius. Rather, I will attempt to give a more mundane perhaps, but more realistic, and ultimately much richer account, not of heroic inventors, but of workers (plural), of all genders and denominations. Touching-feeling end-nodes, collaborating intimately with the texture of materials, not just in the production of material forms, but in the simultaneous co-evolution of material and cultural forms. (Sedgwick, 2003; Tomlinson, 2015)

This work inevitably occurs within in the context of some productive, self-propagating, polyphonic assemblage (inevitably some centre, institute, or laboratory) which, at certain historical moments, began resonating with the entangled cultural, economic, and institutional circuits around it. We might compare the creativity of these assemblages to networks of mycelium in the soil of transitional ecologies, growing outwards, omnidirectionally, slowly accumulating relationships, transforming their environments just as they themselves grow and transform, and eventually reaching critical density in just the right conditions for them to produce a fruiting body. (Tsing, 2017) What follows is a story of those assemblages, the fruiting bodies they produced, and the impact they made on the world with the spores they

released.

i Networked & Participatory Music Performance

- i.1 Key Concepts & Terminology
- i.1.1 Networked Music Performance (NMP)
- i.1.2 Mobile Music
- i.1.3 Participatory NMP
- i.1.4 Local Nework Music
- i.2 Pioneering Works & Practitioners
- i.2.1 Pre-Smartphone Era
- i.2.2 The Rise of Laptop Orchestras
- i.2.3 The Smartphone Orchestra
- i.2.4 Web-Based Participation
- i.3 Frameworks & Platforms
- i.3.1 soundworks (IRCAM)
- i.3.2 Collab-Hub
- i.3.3 PeerJS / SimplePeer
- i.4 Relevance
- i.4.1 Shift in Framing
- i.4.2 Technological Contemporaneity
- i.4.3 Media Archeology & Critical Infrastructure Studies
- ii Creative Coding & Live Coding as Cultural Practice
- ii.1 Ethos of Inclusion
- ii.1.1 Historical Precedent
- ii.1.2 Foundation Texts

Conclusion

Summarize your work and future directions.

References

- Sedgwick, E. K. (2003). *Touching Feeling: Affect, Pedagogy, Performativity*. Duke University Press Books.
- Tomlinson, G. (2015). A million years of music : The emergence of human modernity. Zone Books.
- Tsing, A. L. (2017). The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins (Reprint edition). Princeton University Press.