

Artful Design Reading Response – Chapter 5
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Prompt: Reflect on the role of the computer as it relates to music-making for you; what makes certain uses of the computer better than others?

I think that it is fundamentally more natural for humans to express movement and attention directly with their bodies than it is to program a computer to do so. A property that I noticed and liked about my previous assignment in this class is that I wasn't able to handle all of the controls for my piece at the same time. To maintain certain properties of the song, the mouse cursor has to be moved continuously and vigorously; to maintain a loop, the performer has to hold the shift key down; to interact with the loop, they have to press the number keys and spacebar. Directing my attention to one area of my laptop means a lapse in one of the other areas, and so a performance of the piece is an intricate dance of my hands across my keyboard. A computer could exactly control all of these parameters with no difficulty, but that might miss some of the point and rob the piece of some of the human element that comes across with all the jumpy and sporadic changes.

Computers are really good at replacing us for tasks that are too difficult without proper haptic feedback and other nuanced interfaces. For example, it's really difficult to play a regular rhythm on a laptop when each rhythmic event is triggered individually by a human (unless you're literally finger-drumming on the laptop). In my work, I like to automate tempo and rhythmic patterns, and engage in higher-level control over them. In the assignment discussed above, I don't trigger individual notes, but instead control the tempo by injecting energy in the system with the trackpad. I like to use the computer to automate things that would otherwise require way too much time spent developing the skill to do them (especially in cases where the medium of the computer itself is making that skill development more difficult because of a lack of certain material affordances).

An interesting side note: Perry's notion that programmability is a curse isn't as relevant when you have tools to cope with high dimensional controls. One such tool is interactive machine learning in service of doing X by example: for example, instead of making a mapping from a few control dimensions to many output dimensions, you could just provide a few examples and have the computer give you its best guess as to what kind of mapping you want. That way you don't get lost in the weeds of programmability. (Relevant video: <https://youtu.be/ZngNrNvKLZ4>)

Other salient concepts from this chapter:

- De- / re-mutualization
- Perry: (perhaps) how to regain intimacy between human player and instrument:
 - haptic feedback
 - fidelity from controller to sound generation
 - sense that sound comes from instrument itself
- Embodiment: feel as one with instrument

- Learning to play what you've built and daring to do it in front of other people is the hard and gnarly part
- "More is true than can be proven, and we know more than we can tell."
- Design sanity check: Does the end product justify the technology? Does it do at least one thing that can be achieved by no other means? Does the design use the medium to support the right interplay between technology and humans?
- The computer shouldn't adapt to you -- you adapt to the instrument
- We design because we are creatures of means, needs, purpose, but we also appreciate beauty, truth, friendship, play
- Good design depends on context and medium; there's no blueprint for design
- Digital art / design: a form of art where making a small modification to something someone else made can make it radically new and your own (page 299)