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Music 256A

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Reading Response to *Chapter 4*

From this week's reading, I would like to respond to Artful Design Principle 4.5 and 4.9:

Principle 4.5: Design things with a computer that would not be possible without

Principle 4.9: The purpose of a computer is to do something else

Principle 4.5 defines the power of a computer as a medium to generate and transform in such a way that does not simply remake what already exists. Principle 4.9 similarly describes that technology is a means-to-an-end, and that a designer must envision beyond the capabilities of technology itself.

As someone who has studied computer music over the past 5 years, I find the two distinct powers of computers to be accuracy and scale. The ability to perform sample-accurate computation in real time has presented modern audio software to be superior to traditional analog setups in various occasions. I recently heard from a professional studio engineer that he has worked primarily with digital simulation of guitar amps for his clients rather than use expensive and fragile equipment. While each artist has their preference, such a new trend of digital over analog certainly would not be possible without advancing capabilities of computers. The ability to increase the scale of virtually any calculation using a computer is demonstrated especially when working with hundreds of audio voices, as in the case of additive synthesis. Most artists realistically cannot afford a similar number of analog audio modules to achieve a similar sound. I personally find music made using elements that would not be possible without the use of powerful computers to be fascinating.

The recent rise of artificial intelligence technologies to digitally generate and transform artistic pieces has sparked a discussion on the morality of technological advancement. Those who oppose such a tool have argued that it is replacing tasks of artists and undermining job opportunities in society. As someone who works with computer graphics, I personally find it inspiring to discover the capabilities of next generation graphics cards and computers. However, I believe that the purpose of such a technology should not be to replace or limit the output of any creative individuals, but rather to assist them in their art making process. I was recently introduced to an engineer who designed an AI-based mobile app that generates artwork based on a script and style that a user specifies. While the company mostly promotes it as a wallpaper generator, I found the tool to be useful for creating concept art for any stories that I write. I believe that it is important to acknowledge the benefits and harm that computers can provide, and use them effectively to broaden one's creative vision.