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Digital Vintage



Obsolete Sound Machines & Computer Music Environments

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Subject

In the design of contemporary music software, a strategy of simulation has been established: Functionality and appearance of analog instruments are imitated by means of complex algorithms and photorealistic graphics. Instead of recognizing the specific qualities of the computer as a musical instrument, one recurses to approved aesthetics and traditional methods of operation when designing digital sound tools.

Background

The initial euphoria that accompanied the rise of digital music technology in the 1980's has been put into perspective. Music producers and software designers seem to embrace the limitations of analog studio technology. A retro phenomenon, indicated by the prosperity of the written-off vinyl industry and the considerable popularity of vintage analog synthesizers can be observed. The relative stagnation in the development of novel interaction techniques and alternative forms of representation has lead to a point, where the computer is reduced to its capacity of simulating older media.

So-called VST¹ instruments aim to hide the underlying control structure behind a set of representational means that constitute a meta-medium inside the computer - a process that Jay David Bolter and Richard Grusin define as „remediation“. The metaphors and representations used in today's Human Computer Interfaces (HCI) borrow not only from other media, but also from conventions rooted in our physical environment.

Lev Manovich therefore extends the term HCI towards the notion of a „culture interface“:

„The language of cultural interfaces is a hybrid. It is a strange, often awkward mix between the conventions of traditional cultural forms and the conventions of HCI - between an immersive environment and a set of controls, between standardization and originality. Cultural interfaces try to balance the concept of a surface in a computer interface as a virtual control panel, similar to the control panel on a car, plane or any other complex machine.“²

Thesis

In this work, I elaborate on the intrinsic differences between traditional and digital instruments in order to explore the aesthetic qualities of the computer as a musical instrument.

As with any software, music software exactly defines the possibilities of what can be expressed with it. The aesthetical and functional decisions made in the design process undoubtedly exert an influence on the user's mode of working. The interface can therefore be considered as a musical ideology. To address the question, how the creative work is impacted by the tools being used in the production process, critical positions of contemporary electronic musicians are gathered.

Nicholas Negroponte's proclamation that „The digital revolution is over“³ is qualified by the suggestion that new interaction paradigms and alternative metaphors in HCI could lead to a renaissance of the fascination for the digital medium.

Practical Work

The project's practical part consists of two separate works. The KLANGKLÖTZCHENKISTE (SOUNDBLOCKBOX) is an experimental sequencing tool realised in

a Virtual Reality (VR) environment. One reason for choosing this medium was the fact that there are relatively few VR applications that incorporate sound. One of the most frequent complaints, the disembodiment connected with digital soundtools, is seized by making use of an infrared tracking system to control the software.

The digital work is complemented by the SIMPLISIZER, a handmade voltage controlled tone generator. The aim was to create an individual item with a classy appearance in order to highlight the auratic nature of analog electronic instruments as opposed to the portability and interchangeability of digital code.

Conclusion

This work proposes an approach that is set against the strategies of commercial music software producers towards the design of more transparent interfaces that make use of novel interaction techniques instead of seeking to imitate existing instruments. It also suggests that the user should raise an awareness of the technological environment and the tools he or she is using.

1. VST stands for „Virtual Studio Technology“ and refers to an interface standard developed by the software firm Steinberg, through which Synthesizers and Effect Plugins can be integrated into VST-Host software, such as sequencers or harddisk-recorders.
2. Manovich, Lev, *The Language Of New Media*, Cambridge: MIT Press, 2001, S. 62 ff.
3. Negroponte, Nicholas, *Being Digital*, New York: Vintage, 1996