

# Making Music in Virtual Reality



02. Dezember 2022  
international days  
#SHARING

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## Agenda

- Relationship music and technology
- Case studies of digital music practices in VR
- Getting in touch with VR... and discussion



*Stand on a virtual stage and rehearse in front of a large audience. Or do a DJ workshop with virtual equipment in the living room at home. Or become an instrument-maker in virtual space and create new types of musical instruments. Or move and dance to music in an imaginative, stimulating environment. Although technologies in this field are still in their early stages and some devices are still expensive, there are already a number of applications that offer cheap and attractive access to active music making. What potential does this offer for modern music lessons?*

In this workshop, we have a number of VR-headsets and some apps at our disposal. We will try out some of the applications for making music in VR and talk about possible artistic and educational possibilities and experiences when using these music technologies.

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elevation on

# THE RELATIONSHIP BETWEEN MUSIC AND TECHNOLOGY

## relationship between music and technology

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- Music and technological developments have always been closely intertwined.

"The object of the instrument makers of all epochs are technical (music) machines, at the height of the respective development of manufacturing power."

"Music machines objectify the musical knowledge as well as the aesthetics of a culturally and temporally definable epoch in an abstracted form."

(Harenberg 1999/2012:16)

→ Musical instruments as a mirror of their time and as aesthetic objectification

## interesting phenomenon "inertia" (Krebs 2023)

- Also in the digital play a kind of „inertia“ (as resistance) is observable
  - Acceleration of the play hand
- The principle of the app can be experienced as a specific "playing physics " of its own



## differences in interaction with rotary controls



**Technician**

*Change of a state*

<https://www.youtube.com/watch?v=6cbMlwYjivY>

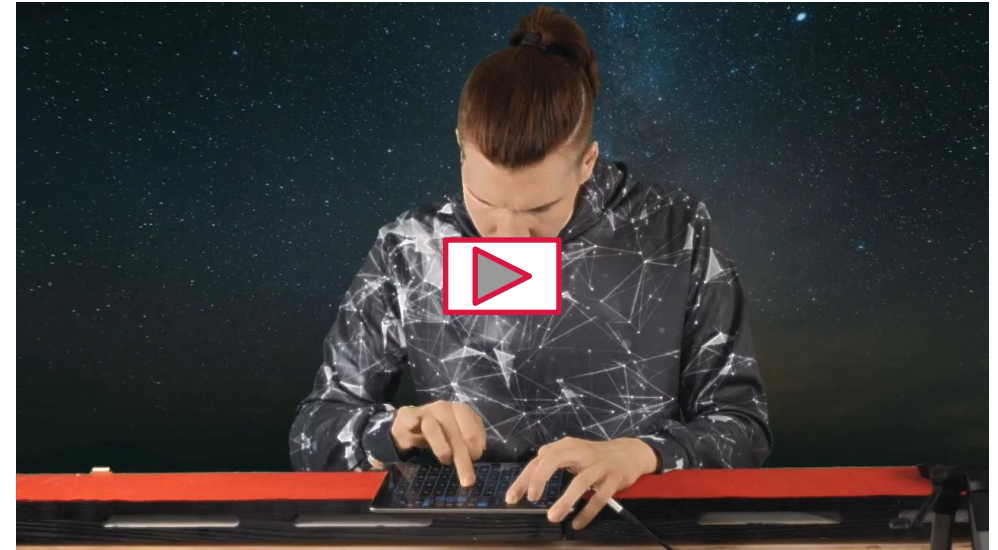
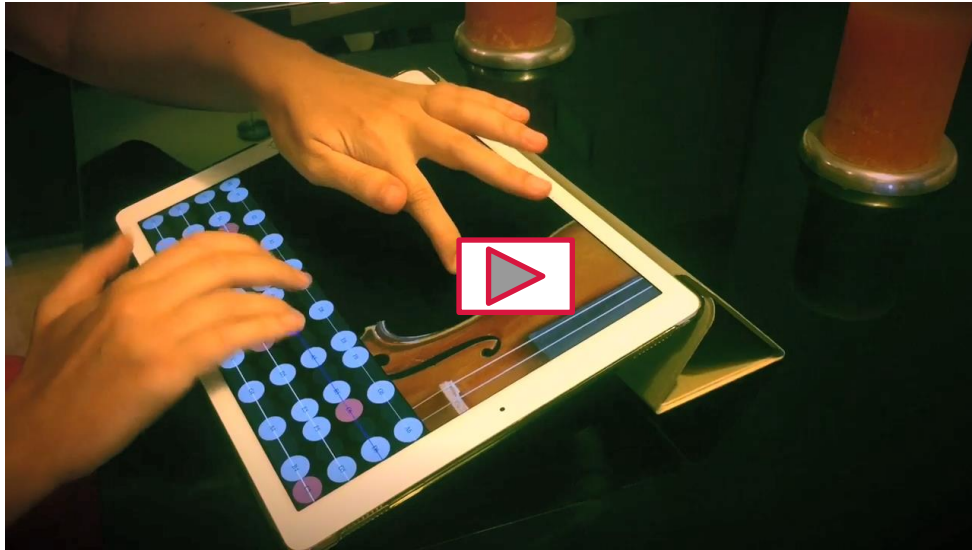


**DJ-Performer**

*Change of a course*



## intense relationship with digital instruments



The examples should give an insight into some specifics.

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music making in  
**VIRTUAL REALITY**

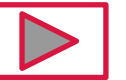




## exploration

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- It is a common belief that objects in virtual environments are not real but are mere imitations or simulations of real objects.
  - But if virtual objects are not real, physical objects, then what kinds of objects are they?
  - These kinds of questions have been central to philosophical and social studies of virtual reality since its early beginnings (Rheingold 1991; Heim 1993; Zhai 1998).
- **What musical experience potentials do virtual worlds offer?**
  - In the following, I focus on different approaches in which freely available technologies such as the VR-hardware Oculus Quest can be used.



## case studies

- Different approaches to making music in virtual space
  - <https://youtu.be/KcZoPRdfHDw>
- In a game:
  - [https://youtu.be/\\_\\_\\_WdW52jBgw](https://youtu.be/___WdW52jBgw) (Half Life Alyx)
- Piano teaching in VR
  - <https://youtu.be/rKv3AjdUd6w>
  - <https://youtu.be/tgpBUSRmtwE>
- Note visualization
  - <https://youtu.be/13moT1lesGQ>



## getting in touch with VR...

- Lobby Quest 2 - <https://youtu.be/-eGcy7czo4E>
- Racket: NX - <https://youtu.be/dKcMVUN4Ric>
- Smash Drums - <https://youtu.be/EH7DUirCmlA> /
- Unplugged: Air Guitar - <https://youtu.be/rTDg1PQKtJA> / <https://youtu.be/Ux1UnBJmcTY>
- Beat Saber - <https://youtu.be/gV1sw4lfwFw>
- Electronauts - <https://youtu.be/1OEg8l22N3Q>



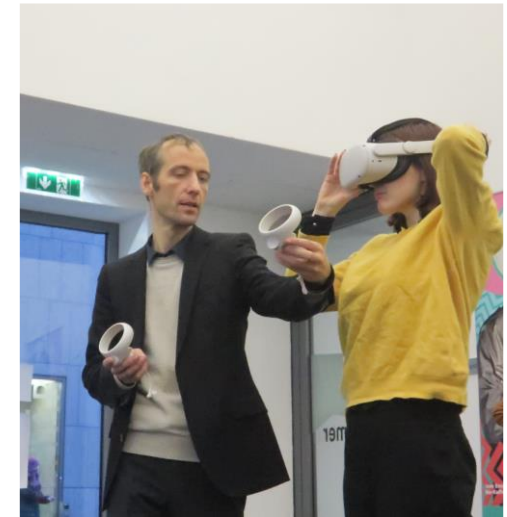
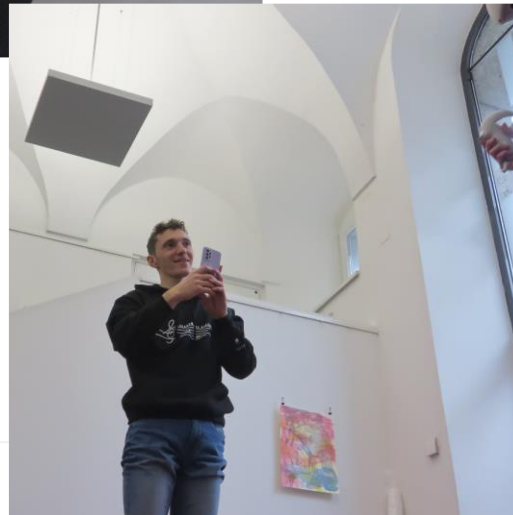
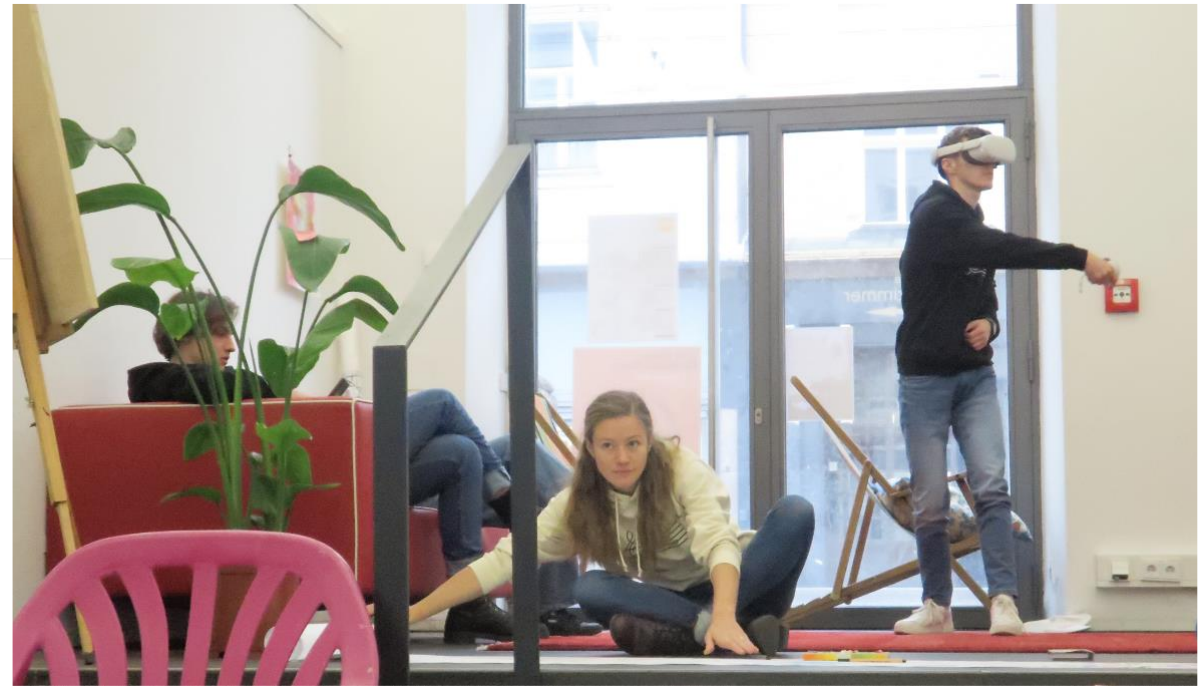
## thoughts / What did you find interesting?

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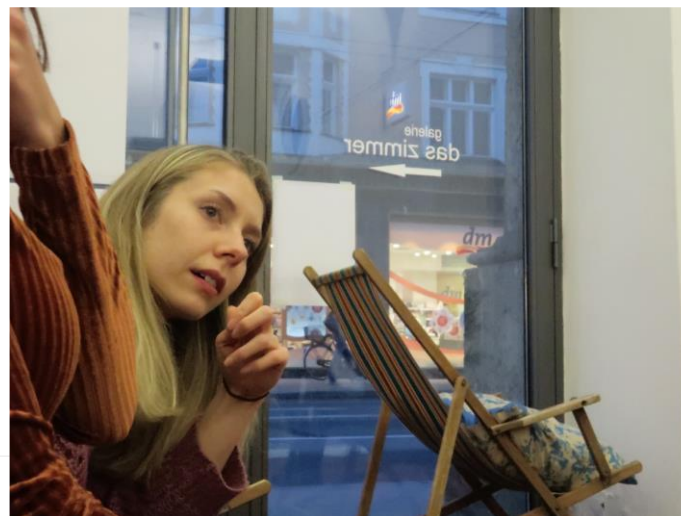
- The whole body is involved and the whole body is in rhythm
- It is not a replacement, but an interesting experience
- But it really seems to be something musical
- Is this just training or a new form of performance?
- Can be additive
- Emotions are different
- I find it difficult to be so isolated
- You lose yourself, you get into a flow, it feels "real"

**From our  
discussions**

## Impressions



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## Contact

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