

LITERACY IN PHYSICAL-VIRTUAL COMMUNICATION AND MUSIC

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DISCUSSION AND SHARING PRACTICES IN HOUSE TO HOUSE TECHNOLOGIES FOR DISTANT MUSICAL INTERACTION
AEC ANNUAL CONGRESS AND GENERAL ASSEMBLY, 6TH NOVEMBER 2020



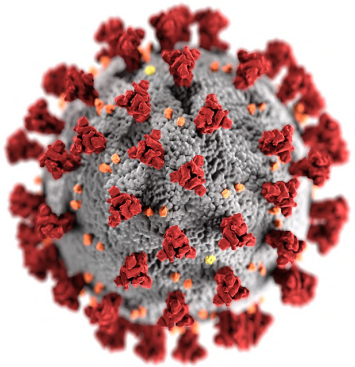
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ABOUT ME

- Associate Professor, Department of Musicology, University of Oslo
- Programme Leader and Coordinator of the Master's Programme in Music, Communication and Technology
- Background in Electronic Engineering (academic) and Electronic Music (non-academic)
- Interest in technologies for sonic arts, audio DSP, machine learning & HCI for music, real-time embedded systems



EARLY 2020 CIRCA



ONLINE COLLABORATIVE MUSIC MAKING NEEDS

Understand the problem at hand (what type of musical collaboration)



Translate into technical requirement against available resources



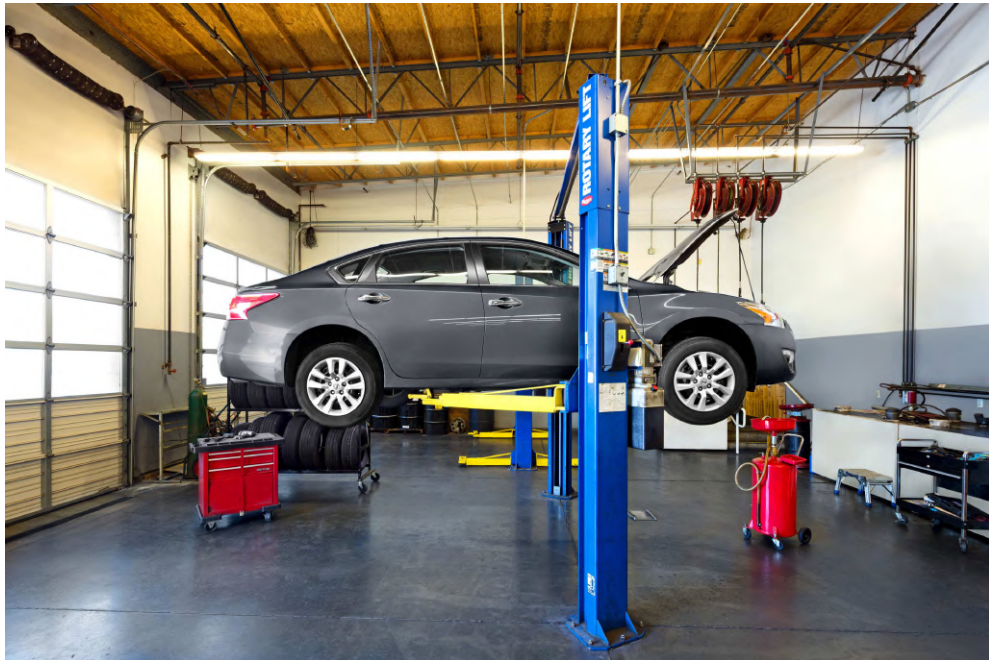
Evaluate alternatives and find best tradeoff between cost vs performances



Implement and troubleshoot



WORKSHOP ANALOGY



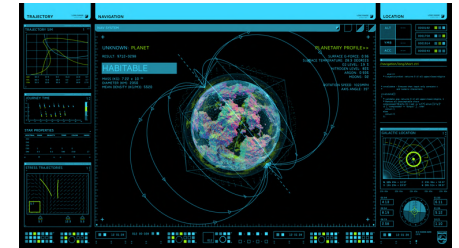
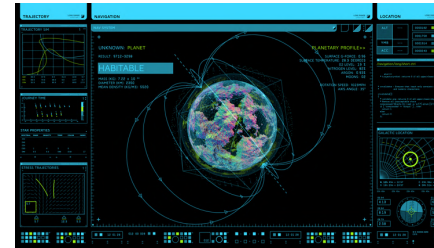
- Find the problem
- Select the right tool
- Use the tool appropriately
- Assess the result

Need for specific **KNOWLEDGE** and **EXPERIENCE**



WHERE IS THE NETWORKED-MUSIC LITERACY PROMOTED ?

- Literacy in networked-music requires
 - knowledge of the tools
 - space for extensive practice and experimentation
 - ability to communicate with other stakeholders
- Who should be a networked-music literate
 - music technologist
 - sound engineers
 - musicians
 - music educators
 - ...
- This is not standard IT stuff (at least in 2020) or something we can just improvise



LATE 2018 CIRCA



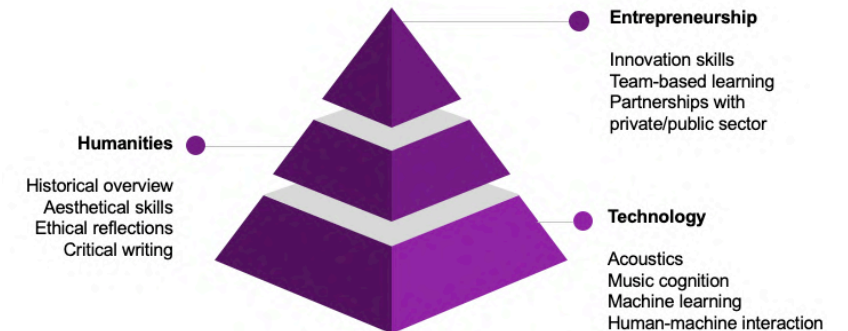
- Establishment of the international Master's Programme in **Music, Communication and Technology (MCT)**
 - Jointly offered by UiO (Oslo) and NTNU (Trondheim)
 - Offered by UiO from 2021 intake
- Strong component in Physical-Virtual Communication in Music
- Minimum functional disruption due to Covid



UiO : **University of Oslo**



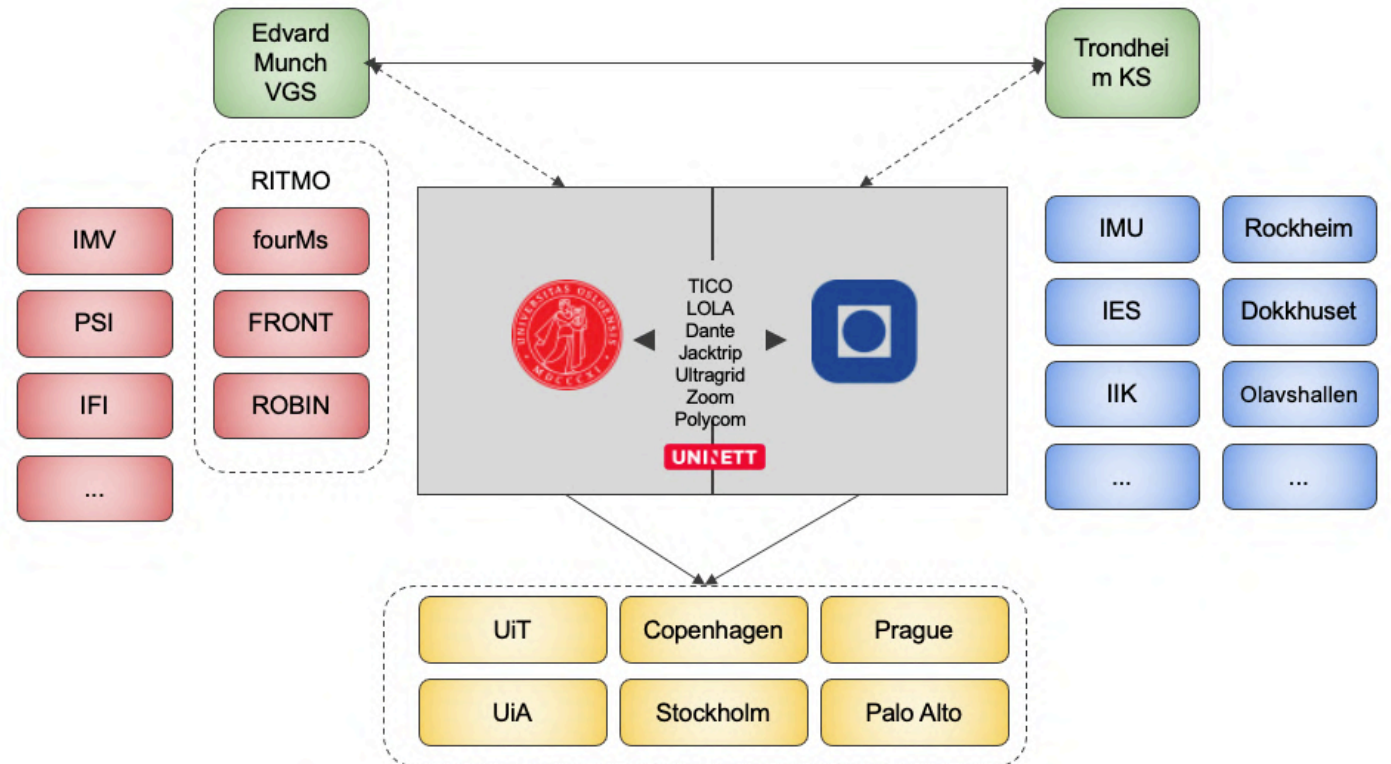
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MCT SETTINGS & PORTAL



- Portal: a laboratory for network-based musical communication
 - Students and teachers separated two physical rooms
- Portal Equipment
 - Multiple displays and multiple cameras
 - Multiple microphones and speaker systems, including opto-sonic array
 - Motion capture system
 - Audio and video routing facilities and acquisition cards
 - Easy to move/reconfigure layout
- Portal Communication Technology
 - LOLA, MVTP-TICO-4K, Zoom Room, Polycom, Ultragrid, Dante, Jacktrip



MCT CURRICULUM



- 16% of the ECTS from courses in Physical-Virtual Communication in Music
 - learn to operate and maintain the Portal
 - gain knowledge and experience on tools for online musical collaboration
 - further explore, integrate, develop technologies for the Portal
 - gain pedagogical experience through the transfer of knowledge
- Other ECTS from courses run in the same settings (or blended, i.e. from home)
 - Learn tools and soft skills for online synchronous and asynchronous musical and non-musical collaboration
 - Portal also used for discussion and socializing
 - MCT settings goal was sustainability (no pandemic) and having an extended network for collaboration



PORTAL ROOM UIO



PORTAL ROOM UIO



PORTAL ROOM UIO



PORTAL ROOM NTNU



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MCT PORTAL



MCT WORKSHOPS



PORTAL MOTION TRACKING & SPATIAL AUDIO INTEGRATION



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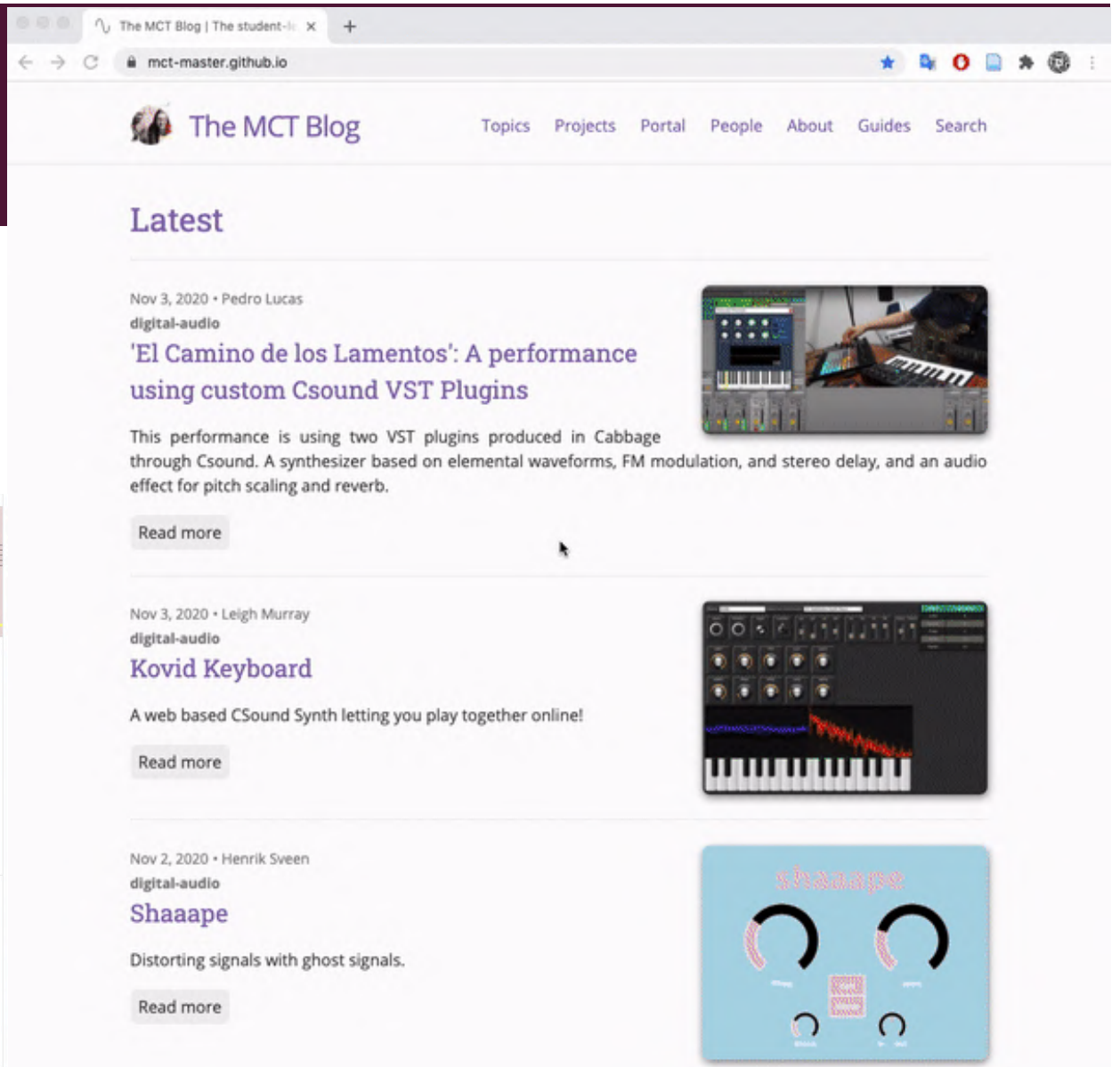
MORE ABOUT OUR WORK

The MCT Blog
mct-master.github.io
section “Portal”

Twitter
@MCT_master



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COLLABORATE WITH US

- Connect with the MCT portals for practicing with networked-music tools and trial performance/jam
- Applied projects for technology development and exploration



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