

Teaching and Learning with Nimbra Technology

What do you do when you want to play a particular instrument and there is no teacher of that particular instrument that can teach you where you live? This is the case for several music students at *Ålands musikinstitut* (ÅMI) at Mariehamn. One way to solve the problem is to employ a teacher to travel to the school of music. However, the distance is always far – as Åland is situated in the middle of the sea between Sweden and Finland why such a travel is not possible on a regular weekly basis. Another solution is to use digital communication technology that can enable such a music educational meeting. In this project, we analyse the educational and didactical affordances that such long-distance communication technology provides. We will present the high-fidelity fibre technology of Nimbra with the extreme low latency of five milliseconds. Given that latency, it is actually possible to play music together in real time. Since a couple of years, a cello teacher from *Stockholms Musikpedagogiska Institut* (SMI) has been teaching students at ÅMI via this technique an arrangement that we have started to follow. In the research project we will look at crucial issues of music didactic communication – *sonic attunement*; sound and frequencies, rhythm and tightness; *visual contact*; mutual eye contact, instrument, score; and *tactile contact*. By employing a multimodal social semiotic theory, we will present how we examine how multimodal semiotics translate to the digital presence? Does all the semiotics translate? If so, to what extend? Does it communicate at all “levels” of music knowledge development – from the level of beginners to advanced level? These questions lead to a recapture of frame factor theory regarding physical frames and the qualification of the student and teacher. An overarching aim with the study is therefor to map out future need of music educational reforms with regards to the entrance of such a digital equipment and the digital literacy that follows.

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