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minDSounDS: live performance of a generative networked music

Topic: (Music)

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Abstract:
It is a proposal to present a **live performance** of a generative networked music that uses multimodal signals and brain computer interface (BCI) to produce music and audiovisuals in real time. minDSsounDs is based on the notion that the delivery of *Presence* is closely tied to an understanding of consciousness and, in particular, of the interplay of implicit and explicit factors in the construction of human behaviour and artistic expression. It is a performance where a group of musicians and machines dialogue in a network, there is a continuous exchange of information between these agents, and the emerging sounds and visuals are shaped by physical actions, movements, music improvisation and implicit signals captured by BCI. Thus we present an interactive performance to create meaningful relationships between agents and explore their interactions using visualization and sonification. This perspective is discussed in [1] where we argue that a theory of mind, including one of creativity and aesthetics, will be critically dependent on its realization as a real-world artifact because only in this way can such a theory of an open and interactive system as the mind be fully validated. In two previous works, we had already developed live performances based on this perspective: re(PER)curso (2007) and Multimodal Brain Orchestra (2009). On these we explored how the internal and external representations of the world can be joined together to create a mixed reality interactive narrative [2]. Computational models, technological tools and compositional strategies used on minDSsounDs are also discussed in previous articles [1][2][3].

Figure 1: Performance of MindSounds

Main References:
[1] Verschure & Manzolli,"*Computational Modeling of Mind and Music*", In Language, Music, and The Brain, ESF Reports, MIT Press, 2013.
[2] Le Groux et al., "*Disembodied and Collaborative Musical Interaction in the Multimodal Brain Orchestra",* Proceedings of NIME, pp. 309–314, 2010.
[3] Mamedes et al., "*Composing for DMIs - Entoa, music for Intonaspacio",* Proceedings of NIME, pp. 509-512, 2013.

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