Designing Phenomenology for Creative Performance with Technology

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Abstract. Phenomenology can be defined as the study of our experience in the world. One aspect of this is our experience of objects in the world, in particular, how we learn to interact with objects that we interact with or use frequently. In particular, a distinction has been made (starting with the work of Heidegger [3]) between the "presence-at-hand" of the learner, where the physical presence of a tool is in present, conscious experience, and the "ready-to-hand" of the experienced user of the tool, where the action being performed is the primary conscious experience and the physicality of the tool is in the background.

In this talk, I would like to make a bridge between these ideas and performance, and suggest that the "phenomenology design" is an important part of designing technologies for performance [1] [4] [5] [6].

Many projects have attempted to build technologies that provide new ways of working during live, improvised or semi-improvised artistic performance. These have included the creation of tools that amplify or transcode performance gestures, technologies that create unrealistic or deceptional visual or sonic effects, technologies that bridge performance spaces with other places in the world, systems that bring other material into the performance space having been provoked by performer actions, means for performers to communicate directly with the audience through some other medium parallel to the main performance, computer performers that take an equal role with human performers, etc.

Arguments have been made that an important role of technologies in improvised performance is to provide "provocation" or "grain" - to stop the performer from falling into patterns of behaviour that are cliched or repetitious. There is a danger, though, of such systems merely creating randomness. How can such provocations be designed in a way that is provocative without being mere random intervention?

Hamman [2] has attempted to formalise this idea by arguing that a provocative object should be one that regularly forces the performer to be aware of the "presence-at-hand" of an object in their space, making the performer aware of new possibilities for using that object in the performance context.

But, there is something lacking in this model. One of the attractions of performance is performer fluency. There is a danger of technologies that disrupt performance for the sake of "creativity" end up disjointed and with a focus on the indecision of the provoked performer. Are there ways to go beyond this?

One model for a "phenomenology design" for performance is for a performer to be working in a fluent, "ready-to-hand" way whilst exploring the future shape of their performance through a different perceptual modality that is not visible to the audience. This is already a part of live performance in a number of media: a dancer or acrobat will explore the "next step" of their performance through internal perception of balance and proprioception, and an improvising wind musician will feel "on the lips" when a sound is about to develop into a new space before they need to make that sound explicit. Can we design technologically-enhanced performance spaces and objects that facilitate this kind of interaction? What other phenomenology designs and design patterns are there?

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