Eric Lewis/Ian Gold
Agile Seed Funding Report

"It Ain't Over"—How can a machine tell when an improvisation is ending?"

Our pilot project was based on the fact that it has proven extremely difficult to program an improvising machine system to tell when an improvisation is ending. While machine systems exist that can create compelling contributions to collective improvisations, they are unable to tell when such improvisations are coming to an end. We theorize that human's ability to do so is an instance of the employment of Theory of Mind, and that machines will need to have, or emulate, theory of mind. Since in humans theory of mind often involves the use of visual clues, our pilot study was intended to see if there is a difference in humans' abilities to tell when an improvisation is coming to an end in cases where they only hear the improvisations vs those where they also can see the improvisers. Are ending clues partially visual not just sonic?

The funds were used to hire two CIRMMT students, one who created a digital interface/program for conducting the experiment, while the other seeded the program with the content needed for conducting the experiment. The data collected suggest that there is a statistically significant different in one's ability to tell when an improvisation is ending when one has visual clues against cases where one only has auditory clues. As a result of this pilot, we hope to refine and scale up the experiment. Prof. Gold and Prof. Lewis presented the results of this experiment, at a major international conference in Greece in Sept. 2019, Improtech, cosponsored by IRCAM and OCC.