GESTURAL

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PROGRAM NOTES and PROJECT DESCRIPTION

Gestural demonstrates the implementation of a gesture-detection algorithm applied to musical notes. The computer segments the live performer's music into perceived musical "gestures", characterizes and categorizes the perceived gestures according to several criteria, and uses characterizations of those gestures to improvise stylistically similar passages.

The gesture characterization software and the realtime improvising software were devised and programmed by Christopher Dobrian for performance by an improvising musician. The program "learns" from the improviser's performance and responds in musically appropriate ways, thus providing an exciting human-computer duo performance as well as demonstrating the effectiveness of the cognition/improvisation software.

For ICMC 2012 I propose that two different pianists will each do a short improvisation with the software, thus giving the audience an opportunity to compare the software's action with two different partners. Two excellent pianists — contemporary music specialist Daniel Koppelman and jazz specialist Kei Akagi — have already performed this work in concert and have volunteered to perform it at ICIM 2012. If the committee deems that two performances are excessive for this conference setting, one of the two performances could be omitted.

The performance normally requires a Yamaha Disklavier piano or similarly MIDI-capable grand piano. If such a piano is not available at any of the venues, Yamaha Corporation has generously agreed to help provide a digital piano for this conference performance.

Links to concert performance recordings of this work are available at
http://music.arts.uci.edu/dobrian/gesture/icmc2012/gestural.htm

BIOGRAPHY

Christopher Dobrian is Professor of Music at the University of California, Irvine where he is the director of the Gassmann Electronic Music Studio and the Realtime Experimental Audio Laboratory (REALab). He holds a Ph.D. in Composition from the University of California, San Diego, where he studied composition with Joji Yuasa, Robert Erickson, Morton Feldman, and Bernard Rands, and computer music with F. Richard Moore and George Lewis. He is the author of the original technical documentation and tutorials for the Max, MSP, and Jitter programming environments by Cycling '74. His work in computer music focuses on the development of "artificially intelligent" interactive systems for composition, improvisation, and cognition.