

Stanford Mobile Phone Orchestra (MoPhO)

The Stanford Mobile Phone Orchestra (MoPhO) is a new repertoire-based ensemble using mobile devices (e.g., iPhones) as the primary musical instrument platform. Far beyond ring-tones, MoPhO's interactive musical works take advantage of the unique technological capabilities of today's hardware and software, transforming multi-touch screens, built-in accelerometers, built-in microphones, GPS, data networks, and computation into powerful and yet mobile chamber meta-instruments. MoPhO was instantiated in 2007 at CCRMA, Stanford University, by faculty member Ge Wang, Deutsche Telekom senior research scientist (now faculty at University of Michigan) Georg Essl, and visiting CCRMA researcher Henri Penttinen, with CCRMA Artistic Coordinator Chryssie Nanou, 2007-2008 MA/MST students, and generous initial support from Nokia. Our mission: to explore new possibilities for music-making for everyone, leveraging pervasive, everyday computing technology.

Nicholas J. Bryan is currently a PhD candidate in at CCRMA. His research interests include human-computer interaction, audio signal processing, and machine learning. Nick received a B.S. in Electrical Engineering and B.M. in Music Engineering (summa cum laude, departmental honors in EE, general honors) from the University of Miami-FL in 2007 and a M.A. in Music, Science, and Technology from CCRMA in 2008.

Luke Dahl is a computer musician and engineer currently pursuing a PhD at the Center for Computer Research in Music and Acoustics (CCRMA) at Stanford University. His research interests include new musical instruments and performance ensembles, musical gesture, rhythm perception, and music information retrieval. He received a BS in Electrical Engineering from the University of Michigan and an MA in Music, Science, and Technology from Stanford. Before graduate school he worked on audio technologies at Creative Labs and Apple. He has composed works for the Stanford Laptop Orchestra (SLOrk) and Stanford Mobile Phone Orchestra (MoPhO), and composes and performs electronic dance music.

Jorge Herrera is a PhD candidate at CCRMA, Stanford University, working in the Music, Computing and Design group, directed by Professor Ge Wang. He earned a BS and MS in Electrical Engineering from Universidad Catolica de Chile and finished the MA/MST at CCRMA in 2009. During the last few years he has worked in web application development for different industries. In 2008 Jorge decided to make music technology the main subject of his professional life. His research interests at CCRMA are computer interactive systems for computer music and, more generally, social music.

Jieun Oh received her Bachelor of Science in Symbolic Systems at Stanford University in 2008. She is currently a PhD student at CCRMA, conducting research in new music-making paradigms (laptop and mobile phone ensembles), sonification/visualization, music cognition, and, more broadly, how music and technology change the way people interact.

Spencer Salazar iSpencer Salazar is a doctoral student at CCRMA researching computer-based forms of music performance and experience. In the past he has created new software and hardware interfaces for the Chuck audio programming language and architected large-scale social music interactions for Smule, an iPhone application developer.

Ge Wang is an Assistant Professor at Stanford University's CCRM), and researches interactive software systems for computer music, programming languages, mobile music, and education at the intersection of computer science and music. Ge is the author of the Chuck audio programming language, the founding director of the Stanford Laptop Orchestra (SLOrk), and the co-founder and director of the Stanford Mobile Phone Orchestra (MoPhO). Ge is the Co-founder, CTO, and Chief Creative Officer of Smule, and the designer of the iPhone's Ocarina and the iPad's Magic Piano and Magic Fiddle.

Carr Wilkerson is a System Administrator at CCRMA specializing in Linux and Mac OS systems. He is a controller and software system builder and sometime performer/impresario, instructor and researcher. He has a BS in Physics from Tulane University, Master of Arts in Music Science and Technology from Stanford (CCRMA), a Master of Engineering in Electrical Engineering from Tulane, and refers to himself in the third person. In a previous life, he was a US Navy Nuclear Propulsion Engineer (think Scotty).

<http://mopho.stanford.edu/>

Stanford Mobile Phone Orchestra (MoPhO)

presents

Music for Audience Participation

music by

Nick Bryan
Luke Dahl
Jorge Herrera
Turner Kirk
Jieun Oh
Spencer Salazar
Ge Wang
Carr Wilkerson



8pm, Thursday, November 18th, 2010
CCRMA Stage, Stanford University

STANFORD UNIVERSITY

Center for Computer Research in Music and Acoustics (CCRMA)
Department of Music

MoPhO is made possible by generous support from the Stanford University School of Humanities and also a CreativeIT grant from National Science Foundation. Deep thanks also to our friends and colleagues at CCRMA, the Stanford Music Department, and Smule.

Notes

Program

Tweet Dreams

Jorge Herrera, Luke Dahl, Carr Wilkerson

Orkestra

Nicholas J. Bryan

We <3

Jieun Oh

Converge 2.0

Jieun Oh and Ge Wang

Madder Libs

Nick Kruge

Tweet Dreams I Jorge Herrera, Luke Dahl, Carr Wilkerson

In this piece we pull tweets in real time from Twitter, and use them to construct musical and graphic networks. The terms we search for are displayed, and the audience can join in by tweeting with these terms. Tweets with the word '#ccrma' get preferential treatment!

Orkestra I Nick Bryan

Audience members will begin the performance by recording themselves grunting and vocalizing similar sounds via mobile phones. The sound clips are then uploaded to a central computer and spatialized in 8-channel surround via a live-coding performance resulting in a synchronized, cacophonous sound experience.

We <3 I Jieun Oh

Audience monitor their heart beats and perform an introspection on their emotional state as they listen to a song. Their responses are immediately compiled by the server and visualized using Protovis. The user interactions and visualization are web-native, achieved through iPad Safari web browser.

Converge 2.0 I Jieun Oh and Ge Wang

Participants recorded sounds, took pictures, and submitted text descriptions of their daily lives during the months preceding tonight's concert using Twitter and email. The sounds, pictures, and text descriptions have been timestamped and location-tagged, to serve as the main ingredients for Converge 2.0. During the piece, events recorded from the past are sonified and visualized, converging to the present time and place. iPads are used to control and trigger specific events on the visualizer as well as to spawn sound recordings and set filter parameters on the laptop stations.

Madder Libs I Nick Kruge

Madder Libs started as an answer to the question, "What would Mad Libs be like if it were musical?" Whereas in Mad Libs, users come up with words for descriptions and enter them in a story, in Madder Libs users submit clips of themselves emulating different instruments and they are inserted into a song. Please keep your eye out for my station on the 2nd floor, where you will be able to play all the samples recorded for tonight's performance on the iPad component of the Madder Libs system!