SONIFICATION: MAKING DATA SOUND

CHRIS CHAFE

THU / NOV 1
TALK / 6PM / THEATER
WORKSHOP / 7:30PM / STUDIO BETA
SONIFICATION: MAKING DATA SOUND

Computers and music have been mingling their intimate secrets for over 50 years. These two worlds evolve in tandem and where they intersect they spawn practices that are entirely novel. One of these is “sonification,” turning raw data into sounds and sonic streams to discover new relationships within the data set by using a musical ear. This is similar to data visualization, a strategy that reveals new insights from data when it is made for the eye to perceive as graphs or animations. A key advantage with sonification is sound’s ability to present trends and details simultaneously at multiple time scales, allowing us to absorb and integrate this info the same way we listen to music.

This evening will include two events, a talk and a hands-on workshop:

THE TALK
Presents an in-depth look into the potential and application of sonification.

THE WORKSHOP
Offers participants an opportunity to work with their own data sets and explore sonification as a new approach to their data.

To participate in the workshop, please bring your own laptop and headphones. You will need to have a recent version of Firefox, Chrome, or Edge installed as a browser. You will also need a text editor and a file of your own data ready with a single column of values in plain .txt format. This can be copied or exported from a spreadsheet or other source. The range of your values doesn’t matter, as it will be rescaled when read by the sonification software. For those interested, please join us immediately following the talk for the workshop in EMPAC’s Studio Beta. For more information, you can review the workshop set up instructions at https://ccrma.stanford.edu/courses/220a/homework/1j/. All steps and information will also be covered during the workshop.

CHRIS CHAFE is the director of Stanford University’s Center for Computer Research in Music and Acoustics (CCRMA) and approaches the practice of sonification from a background in computer-generated musical composition, using algorithms in the sculpting of musical detail. In much the same way, sonification uses datasets to generate sounds that can lead to a different or deeper understanding of patterns and processes in the sonified data. From global economic trends, atmospheric CO2 changes, or seemingly mundane events such as the ripening of fruit, sonification provides a means of gaining new perspectives on data through listening.

CURATORS / Ashley Ferro-Murray and Johannes Goebel
STAFF

GEOFF ABBAS / DIRECTOR FOR STAGE TECHNOLOGIES
ERIC AMERES / SENIOR RESEARCH ENGINEER
CONSTANZA ARMES CRUZ / CURATORIAL ASSISTANT
ARGEIO ASCANI / FORMER CURATOR, MUSIC
DAVID BEBB / SENIOR NETWORK ADMINISTRATOR
PETER BELLAMY / SENIOR SYSTEMS ADMINISTRATOR
MICHAEL BELLO / VIDEO ENGINEER
VIC BROOKS / CURATOR, TIME-BASED VISUAL ART
ERIC BRUCKER / LEAD VIDEO ENGINEER
BRUCE BRYNE / MASTER CARPENTER
MICHLE CASSARO / GUEST SERVICES COORDINATOR
GORDON CLEMENT / MEDIA SYSTEMS INTEGRATOR
JOHN COOK / BOX OFFICE MANAGER
DAVID DELAROSA / DESKTOP SUPPORT ANALYST
ZHENELLE FISH / ARTIST SERVICES ADMINISTRATOR
ASHLEY FERRO-MURRAY / ASSOCIATE CURATOR, THEATER & DANCE
KIMBERLY GARDNER / MANAGER, ADMINISTRATIVE OPERATIONS
JOHANNES GOEBEL / DIRECTOR
SARA GRIFFITH / PRODUCTION TECHNICIAN
IAN HAMELIN / PROJECT MANAGER
MICHAEL HANRAHAN / SENIOR EVENT TECHNICIAN
RYAN JENKINS / VIDEO ENGINEER
SHANNON JOHNSON / WEB MANAGER
MICHAEL LAKE / PRODUCTION TECHNICIAN
ROBIN MASSEY / SENIOR BUSINESS ADMINISTRATOR
STEPHEN MCLAUGHLIN / AUDIO ENGINEER
DANIEL MELTZER / MASTER ELECTRICIAN
JOSH POTTER / MARKETING AND COMMUNICATIONS MANAGER
SHARINEKA PHILLIPS / BUSINESS COORDINATOR
AVERY STEMPEL / FRONT OF HOUSE MANAGER
KIM STROSAHL / PRODUCTION COORDINATOR
JEFFREY SVATEK / AUDIO ENGINEER
MICHAEL VALIQUETTE / INTERIM GRAPHIC DESIGNER
TODD VOS / LEAD AUDIO ENGINEER