

Keynotes and Panel Discussion

Keynote by George Lewis

Living with Creative Machines: A Composer Reflects

George Lewis, improviser-trombonist, composer, and computer/installation artist, studied composition with Muhal Richard Abrams at the AACM (Association for the Advancement of Creative Musicians) School of Music, and trombone with Dean Hey. The recipient of a MacArthur Fellowship in 2002, a Cal Arts/Alpert Award in the Arts in 1999, and numerous fellowships from the National Endowment for the Arts, Lewis has explored electronic and computer music, computer-based multimedia installations, text-sound works, and notated forms. A member of the AACM since 1971, Lewis's work as composer, improviser, performer, and interpreter is documented on more than 120 recordings. His published articles on music, experimental video, visual art, and cultural studies have appeared in numerous scholarly journals and edited volumes, and a book, *Power Stronger Than Itself: The Association for the Advancement of Creative Musicians* will be published by the University of Chicago Press in 2007. Lewis is the Edwin H. Case Professor of American Music at Columbia University. Lewis's pioneering multi-computer interactive work, *Rainbow Family*, was commissioned by Ircam and performed in 1984 in its Espace de Projection. Lewis also performed his virtual orchestra work, *Voyager*, at the Ircam Summer Academy in 1994.

Keynote by William Gaver

Listening to the World: Information and Aesthetics

Auditory interfaces for computers can be based on auditory icons, in which computational events are signaled by analogous sound-producing events. For example, selecting a file might make the sound of tapping on an object, with the type of file indicated by the material of the object and the size of the file by the object's size. This strategy is based on a distinction between musical listening, in which we attend to features of sound such as pitch, loudness and timbre, and everyday listening, in which we attend to features of events such as size, force and texture. Everyday listening is relatively neglected, but it is clear we can perceive a huge amount of information about the world from the sounds it makes. I will illustrate a variety of auditory interfaces that make use of this potential.

If the informative nature of sound is important for auditory interfaces, so are the aesthetics of auditory cues. Positioning designs on the cusp of information and aesthetics can be used to create opportunities for exploration that are simultaneously pleasurable and meaningful. I will describe several prototype systems that illustrate design for this sort of playful engagement, and discuss the design of a new system that brings environmental sounds into the home to support local awareness and evoke curiosity in aesthetically pleasing ways.

William Gaver is a professor of design at the Goldsmiths College, University of London, and a Principle Investigator on the Equator IRC. He has pursued research on innovative technologies for over 15 years, working with and for companies such as Intel, France Telecom, Hewlett Packard, IBM, and Xerox. He has gained an international reputation for a range of work that spans auditory interfaces, theories of perception and action, and interaction design. Currently he focuses on design-led methodologies and ludic technologies for everyday life.