

MIT INVENTOR AND COMPOSER TOD MACHOVER, SAGE CENTER DISTINGUISHED FELLOW

For more information, contact:

John Hajda
Associate Director, Sage Center for the Study of the Mind
Department of Psychological & Brain Sciences
University of California, Santa Barbara
hajda@psych.ucsb.edu
(805) 893-4460



[Tod Machover](#), Muriel R. Cooper Professor of Music and Media at the MIT Media Lab, is the Sage Center Distinguished Fellow for December 2011 and January 2012. Machover is Director of the Media Lab's [Hyperinstruments](#) and [Opera of the Future](#) Groups. He was dubbed "America's most wired composer" by the *Los Angeles Times*.

An influential composer, Professor Machover has been praised for creating music that breaks traditional artistic and cultural boundaries; his music has been performed and commissioned by some of the world's most important performers and ensembles. In 1995, he received a "Chevalier de l'Ordre des Arts et des Lettres," one of France's highest cultural honors, and in 1998 he was awarded the first DigiGlobe Prize from the German government. He has composed five operas and is the inventor of Hyperinstruments, a technology that uses smart computers to augment virtuosity. Hyperinstruments have been used by performers such as [Yo-Yo Ma](#), Prince, and Peter Gabriel. Machover is also the creator of the [Toy Symphony](#), an international music performance and education project. His research group is currently examining ways to use music in therapy for emotionally and physically challenged individuals. In March 2008, Machover and composer Dan Ellsey gave a powerful and inspirational [TED Conference talk](#). He also shared the stage with Intel's Johan Jervøe, MRM Worldwide CEO Marc Landsberg and The Black Eyed Peas' Will.i.am at a [panel on Technology Transforming Creativity](#) at the 2011 Cannes Lions Festival.

Machover's opera [Death and the Powers](#) premiered in Monte-Carlo in the fall 2010; the project was developed by a creative team of international artists, designers, writers, and theatrical luminaries, as well as by an interdisciplinary team of Media Lab graduate and undergraduate students. Scored for a small ensemble of specially designed Hyperinstruments, Powers features a robotic, animatronic stage—the first of its kind—that gradually "comes alive" as the opera's main character. Machover, who was formerly director of musical research at Pierre Boulez's IRCAM institute in Paris, received both his BA and MA from the Juilliard School in New York.

Locations and descriptions of Professor Machover's lectures follow:

December 08, 2011-- *Hyperinstruments*: From Yo-Yo Ma to Guitar Hero and Beyond
3 p.m., Bren Hall, Floor 4L, Room 4016



Technology has tended to pull music either into the static perfection of the digital recording studio (starting with The Beatles' *Sgt. Peppers*) or the simple spontaneity of the iPad. Tod Machover invented Hyperinstruments in 1986 to achieve the best of both worlds, allowing rich and complex music to be performed live through smart technologies that interpret the natural gesture of virtuosi and everyone else. This presentation will discuss a wide range of Hyperinstruments, from a hypercello for Yo-Yo Ma, to the development of Guitar Hero, to the recent hyperpiano and hyperorchestra from Machover's just-released CD, ...*but not simpler*...

December 12, 2011-- *Everyone's a Composer*. Hyperscore, Personal Opera, and a New Musical Ecology
3 p.m., Karl Geiringer Hall, Music Building, Room 1250 (note location)



Everyone can compose original music if given the proper tools. Hyperscore was originally designed for children at the MIT Media Lab in 2002, and launched as part of Tod Machover's *Toy Symphony* project. Since then, it has been used worldwide in schools, performing arts centers, museums of all sorts, in online communities, and increasingly by people of all ages and backgrounds. In this lecture-demonstration, examples of Hyperscore pieces will be given, including a live performance of Machover's own *Hyper-Dim-Sums*. In addition, new initiatives will be discussed that allow seniors to communicate memories via Personal Operas, and enable experts and amateurs to connect musically for mutual benefit through creative communities.

January 11, 2012-- *Music, Mind and Health: Diagnosis, Treatment, and Well-being through Active Sound*
3 p.m., Bren Hall, Floor 4L, Room 4016



Music is not just one of our most intimately powerful experiences; increasing research shows that it is also one of the richest media for promoting well-being, enhancing communication, diagnosing disease, and curing emotional and physical ailments. In this presentation, Tod Machover will discuss underlying principles and current findings in music, mind and health, giving examples of "personal instruments" that promote music as a communication medium for those with few other outlets, and of new techniques for detecting and treating memory deficits through creative music-making.

January 18, 2012-- *Opera for Robots and People Too: An Unexpectedly Experimental Medium*
3 p.m., Karl Geiringer Hall, Music Building, Room 1250 (note location)



Opera might seem like a very traditional, conservative art form, but it has always been a laboratory for hybrid experimentation and is currently enjoying a renaissance of exciting vitality and surprise. Tod Machover has produced one of the most radical and influential bodies of operatic work over the past 25 years, and will demonstrate the range of his interests, drawing from sources as diverse as Philip K. Dick, Tolstoy and Marvin Minsky. Special focus will be given to Machover's most recent opera, *Death and the Powers*, about a man who wants to live forever and tries to perpetuate his legacy through a set of animated objects, including a chorus of robots ("Operabots"). A hit in Monaco, Boston and Chicago, *Powers* was described in the *Wall Street Journal* as: "Passionate intensity. Full-bodied arias in a post-organic world."
