



INTERNATIONAL CONFERENCE ON COMPUTATIONAL CREATIVITY
MEXICO CITY, 27-29 APRIL 2011

Proceedings of the Second International Conference on Computational Creativity

edited by

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División de Ciencias de la Comunicación y Diseño
Universidad Autónoma Metropolitana – Unidad Cuajimalpa



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Preface

This second international conference builds on the success of the original meeting held in 2010 in Lisbon (which itself built on a series of workshops held over ten years prior). Significantly, the conference is venturing out of Europe to the Americas in an effort to further broaden participation internationally. Contributing further to this internationality, the programme committee boasts members from Australia, Germany, Hong Kong, Indonesia, Ireland, Italy, México, Portugal, Spain, the United Kingdom and the United States. We received submissions from authors in 16 different countries. As the field continues to progress, we look forward to being the venue at which its best work is showcased.

This year we received 46 paper submissions as well as 8 show and tell submissions. Each of the paper submissions was reviewed by at least three programme committee members and additionally by at least one member of the senior programme committee. Each of the show and tell submissions was vetted by the senior programme committee. We are grateful for the thoughtful and thorough reviews provided by the programme committee (without whose hard work, this conference would not have been possible), and, based on these, we accepted 31 papers and 7 show and tell presentations.

The papers naturally form seven overarching themes around which the conference program has been organized. The first presents the development of computationally creative systems applied to specific domains, from poetry to visual art to game design to linguistics. The second examines the social aspects of computational creativity, considering collaboration, shared models, language and play. The third explores several aspects of developing systems in the domain of narrative. The fourth takes a cybernetic view, comparing and contrasting psychological and artificial approaches to creativity in the context of the visual, the humorous and the musical. The fifth considers foundational issues of general concern to the broad field, including new frameworks and models, evaluation, search and novelty. The sixth presents a set of helpful tools for augmenting human creativity in the domains of sound, software, dance and game design. The seventh has a cognitive flavor, including topics such as visual association, concept discovery, identity and cognitive modeling. The show and tell demonstrations include systems that produce jokes and visual art, systems that facilitate various aspects of narrative construction, a system for music performance, and an alternative interaction mechanism for games and modeling.

The conference is also experimenting with a new program format, one designed to foster more group discussion/interaction. This year, all talks are allotted seven minutes for communicating major provocative points. These talks are grouped thematically and after they are presented, a session chair will oversee an hour-long group discussion of the theme and the points of the talks, making use of the presenters as an *ad hoc* panel and taking discussion points and rebuttals from the audience at large.

This year, we again look forward to stimulating discussion, interesting presentations and the genesis of important collaborations. We will take a few more steps towards the development of systems that must eventually be acknowledged

as creative themselves, toward meaningful ways to talk about and measure creativity (at least in artificial systems), toward systems that augment our own creativity and, in the process, we will, perhaps, ask additional interesting questions about ourselves.

April 2011

Dan, Pablo, Fox, Alison, Mary Lou and Geraint
Provo, Madrid, Boston, Edinburgh, Alexandria, London

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Keynote Address

George E. Lewis

Columbia University



Improvising with Creative Machines: Reflections on Human-Machine Interaction

The ever-widening role of interactive digital systems in a globalized cultural, social, and economic environment is now being complemented by a similarly wide-ranging retheorization of how the primordial human practice of improvisation produces knowledge and meaning. Because both improvisation and computing serve as important sites for interdisciplinary exploration in the arts and sciences, a twinned theorizing of improvisation and interactivity will help to illuminate the ways in which new and more powerful forms of computer interactivity are challenging traditional conceptions of human identity, physicality, sociality, agency, history, and power.

George E. Lewis is the Edwin H. Case Professor of American Music at Columbia University. The recipient of a MacArthur Fellowship in 2002, an Alpert Award in the Arts in 1999, and fellowships from the National Endowment for the Arts, Lewis studied composition with Muhal Richard Abrams at the AACM School of Music, and trombone with Dean Hey. A member of the Association for the Advancement of Creative Musicians (AACM) since 1971, Lewis's work as composer, improviser, performer and interpreter explores electronic and computer music, computer-based multimedia installations, text-sound works, and notated

and improvisative forms, and is documented on more than 130 recordings. His oral history is archived in Yale University's collection of Major Figures in American Music, and his published articles on music, experimental video, visual art, and cultural studies have appeared in numerous scholarly journals and edited volumes. His widely acclaimed book, A Power Stronger Than Itself: The AACM and American Experimental Music (University of Chicago Press, 2008) is a recipient of the American Book Award (2009), the American Musicological Society's Music in American Culture Award (2009), and an Award for Excellence in Recorded Sound Research from the Association for Recorded Sound Collections (2009).