Donald R. and Joan F. Beall
Center for Art + Technology
University of California, Irvine

Press Packet

For immediate release - December 8, 2009

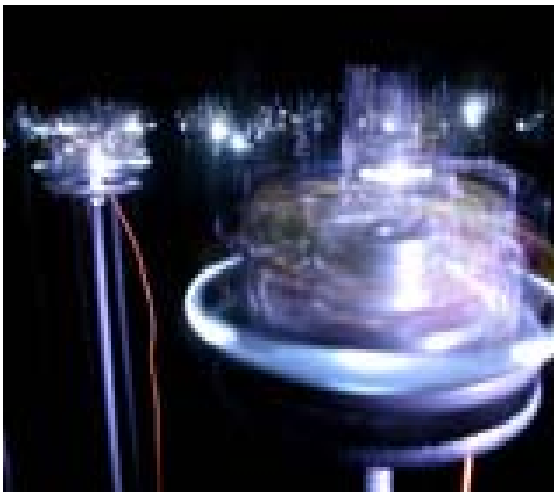
Emergence: Art and Artificial Life

Works by Marc Böhlen, Ruairi Glynn, Leo Nuñez, and Karolina Sobecka

Curated by David Familian and Simon Penny

Performative Ecologies (2009)
by Ruairi Glynn

Universal Whistling Machine (2005-06)
by Marc Böhlen *(canary not in exhibition)*



Propagaciones (2007)
by Leo Nuñez

Sniff (2009)
by Karolina Sobecka with software
developed by Jim George

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EXHIBITION: ***Emergence: Art and Artificial Life***
Works by Marc Böhlen, Ruairi Glynn, Leo Nuñez, and Karolina Sobecka
Curated by David Familian and Simon Penny

DATES: January 8 – May 7, 2010

LOCATION: Beall Center for Art + Technology, UC Irvine

EVENTS: **OPENING RECEPTION:** Thursday**,** January 7, 6:30 – 9:00pm
BOXED MUSIC EVENT: Thursday, March 11, 6:30 – 9:00 pm
FAMILY DAY: Saturday, April 17, 11am – 3pm

ADDRESS:
University of California, Irvine
Claire Trevor School of the Arts
712 Arts Plaza
Irvine, CA 92697-2775

HOURS:
Tuesday - Wednesday, 12 – 5pm
Thursday - Saturday, 12 – 8pm

GENERAL CONTACT:
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http://beallcenter.uci.edu

Emergence is available for travel beginning May 2010.

BRIEF OVERVIEW

The Beall Center for Art + Technology at the University of California, Irvine brings innovative new-media exhibitions that use the latest experimental artistic and scientific digital, audio and visual technology.

As part of an ongoing commitment to exhibiting various areas of experimental media arts, the Beall Center is proud to show a selection of work by international artists representing the current state of work in the interdisciplinary field of art and artificial life.

EXHIBITION INFORMATION

Utilizing artificial intelligence and genetic programming techniques, custom electronics and robotics, *Emergence* features international artists representing the current state of work in the interdisciplinary field of art and artificial life. The interactive works in the exhibition include sculptural

and sound based works that utilize various forms of AI such as machine vision, semi-autonomous agents, genetic algorithms and cellular automata.

The Beall Center exhibition includes *Propagaciones* by Leo Nuñez, a sculptural realization of one of the icons of artificial life, the cellular automaton; Marc Böhlen's *Universal Whistling Machine*, which deploys AI techniques to present an amusing take on machine intelligence; *Performative Ecologies*, by Ruairi Glynn consisting of a trio of "dancing fools" - devices that seek to demonstrate the most pleasing dance they can devise; and *Sniff* by Karolina Sobecka, where a virtual dog interacts with viewers via machine vision. Each of these works offers an insight into a different dimension of Artificial Life Art.

LIST of WORKS IN EXHIBITION

Universal Whistling Machine (2003-05) by Marc Böhlen, with J.T. Rinker

The *Universal Whistling Machine* (*U.W.M.)* is an investigation into human-machine interface design with non-speech acts. Usually, computer interfaces are designed to work with expression modalities people use in their everyday exchanges with other people: speech, gestures and touch. Not unlike a device designed for the speech impaired, *U.W.M*. investigates an alternate modality of expression. However, unlike devices designed for the speech or hearing impaired, *U.W.M.* offers all of us a temporary respite from meaning in a world where words often mean nothing.

Whistling is much closer to the phoneme-less signal primitives compatible with digital machinery than the messy domain of spoken language. Whistling occurs across all languages and cultures. Lacking phonemes, whistling is a pre-language language, a candidate for a limited Esperanto of human-machine communication.

U.W.M deploys AI techniques and real-time signal processing methods to discern voices from whistles, recognize whistles and to create its whistled responses. U.W.M. makes use of imitation and variation strategies common to other non-speech communication systems in its whistle compositions. Whistle to this device and it will respond with a counter whistle, based on its own analysis of your whistle. Respond to that and you will find yourself in an unusual emergent exchange. Canaries enjoy this just as people do: http://www.realtechsupport.org/movies/uwm_canary.mp4.

Performative Ecologies (2009) by Ruairi Glynn

Through a Kinetic Robotic performance, four attention seeking light sculptures engage in an endlessly evolving dance with their audience and each other. Both audience and installation become an ecology of participating performers, both observing and gesturing, learning and collaborating.

Investigating gestural forms of dialogue between inhabitants and an evolving environment, Performative Ecologies is a kinetic 'conversational' environment, which examines what it means both to observe, and to be observed by machines. It considers in the light of developments in computer vision, sensing and artificial intelligence, how an 'intelligent' architecture can discuss its behaviors in relation to the goals and behaviors' of the world around it. Within the darkened installation space, a dance evolves as a community of autonomous, but very sociable, robotic sculptures perform with their illuminated tails for inhabitants. Rather than being pre-choreographed, these creatures propose and negotiate with their audience, learning how best to attract and maintain their attention. Using a genetic algorithm to evolve performances, and facial recognition to assess attention levels (fitness), the individual dancers learn from their successes and failures. As they gain experience, they share their knowledge with the larger

ecology, dancing to each other, exchanging their most successful techniques, and negotiating future performances collaboratively.

Propagaciones (2007) by Leo Nuñez
"Propagations" is a system of cellular automatons, made up by 50 robots. Different states emerge from this complex system. These states are defined not only by the interaction of the robots with the spectators, but also by the interaction of the robots with their neighboring pairs. This work explores the possibility of creating a system of robots based on the computability theories of cellular automatons, but materialized in 50 robots.

This work system also tries to investigate the man machine relation. The robots are unmanageable objects; thus, the control of these escapes the individuals and remains in the system itself, in the propagation of the information between the objects. The interaction of the users is mediated by a luminous interface keeping the body of the user away from the robots. This distance emphasizes the notion of the unmanageable objects, establishing a man-machine relation only mediated and more and more distant.

Each automaton is molded into a small robotic sculpture. The shape is given by the different electronic components necessary for its functionality. All the robots share the same electronic circuit design, but in their formality they are all different. Each cell or robot is constructed with Low-tech technology. This decision seeks to create a speech that establishes itself in a context of social criticism, generating an argument on the difference in the technology availability between the countries of the first world and the Latin American countries.

Sniff (2009) by Karolina Sobecka with software developed by Jim George
Sniff is an interactive projection: an animated dog follows passers-by, discerns their behavior as friendly or aggressive, tries to engage them and forms a relationship with them based on the history of the interaction. As the viewer walks by the projection, their movements and gestures are tracked by a computer vision system. Sniff is an exploration of the moment of engagement. It partly grew out of interest in philosophical discussion about the mind and mind theory, particularly in what's termed the "commonplace" understanding of mental states and inferring of agency. Our automatic interpretation of behavior as social interaction is especially emblematic in a non-linguistic engagement with the 'other', which in case of Sniff produces a hybrid space of virtual and real emotions, social guess-work and mind modeling. Sniff is an attempt to trigger an intense, playful and insightful level of engagement at which we solve the "other minds" problem in everyday life. Sniff is inserted into our physical reality and follows its rules.

ARTISTS' BIOGRAGPHIES
Marc Böhlen - Under the moniker REALTECHSUPPORT Marc Böhlen has been designing and building, over the past decade, information processing systems that critically reflect on information as a cultural value. Böhlen calls this REALTECHSUPPORT because technology, a dominant vector of the 21st century, cannot solve all the problems generated in its wake; it needs support. His work attempts to contribute to such a support system.

Böhlen, a stone mason, art historian and roboticist by training, is currently associate professor in the department of Media Study at the University at Buffalo. Böhlen's work has received numerous awards,

including the ALIFE/VIDA 7.0 prize and has been discussed in the New York Times and the Discovery Channel. Recent and upcoming shows and presentations include the Shanghai AI lectures (Jiao Tong University, Shanghai 2009), ETECH2009 (San Jose 2009) and Cynetart (Dresden 2008). Recent and upcoming publications include Second Order Ambient Intelligence (JAISE 2009), Ambient Intelligence in the City (Springer 2009), and Micro Public Places (Architectural League New York 2010).

Ruairi Glynn - Trained as an architect following an earlier career in interactive arts, currently split his practice between production of public art installations, teaching, curation and writing. Over the past three years Glynn has built the largest online resource dedicated to spatial interaction www.interactivearchitecture.org where you can find many of his works and that of other artists, architects and designers who have inspired Glynn. Glynn's practice is about not just producing his work in isolation but rather forming it out of a continual conversation with a range of disciplines and practitioners from material science through to product and sculptural design, through to mobile robotics and kinetic architecture.

Glynn is currently a Lecturer in Adaptive Architecture and Computing at the Bartlett School of Architecture, University College London and Lecturer at Central Saint Martins College of Art and Design, University of Arts London on the MA Textile Futures and MA Industrial Design programs. Glynn has been a visiting critic to architecture, art and interaction design schools including the Delft faculty of Architecture (Netherlands), the Institute of Digital Art and Technology (UK), the Interactive Institute (Sweden), the Angewandte Vienna (Austria), the Architectural Association (UK), EID Sao Paulo (Brazil) and the University of Sydney (Australia). During 2009 his works were included in exhibitions at the London Design Festival, Truman Brewery, London UK; the Art Center Nabi, Seoul, South Korea; Instituto Itaú cultural, Sao Paulo, Brazil; Atelier Farbergasse Gallery, Vienna, Austria; and "VIDA 11.0" – ARCO Art Fair, Madrid, Spain.

Leo Nuñez - Born in 1975, Buenos Aires, Argentina, Leo Nuñez studied systems engineering at UTN (National Technical University), image and sound design at UBA (University of Buenos Aires), and Electronics Arts at UNTREF (National University of Tres de Febrero). He works at IUNA (National University Institute or Art) and UNLP (National University of La Plata) offering programming and Electronic Art Workshops.

Nuñez has won two national prizes given by MAMBA and Espacio Fundacion Telefonica (2006 and 2009) and two international prizes given by VIDA art and artificial life international awards, one in 2007 in the category "finished projects" and in 2009 for "Artistic production incentives in Iberoamerica, Spain and Portugal", and has won a research fellowship given by CCEBA (Cultural Center of Spain in Buenos Aires). He has participated in ten national and three international exhibitions.

Karolina Sobecka - Poland native Karolina Sobecka works with interactivity, physical computing, video, animation, and other media. Her artistic interest often influenced by advances in science and technology, and their repercussions in popular culture. She is interested in creating work that has meaning outside of art context and that engages public space. Sobecka received her BFA from the School of the Art Institute of Chicago and her MFA from Calarts in Experimental Animation/Integrated Media. She has also studied and taught in the University of Washington's Digital Arts and Experimental Media PhD program. Sobecka's work has been shown at festivals and galleries around the world, including ISEA, Interactivos, Trampoline Radiator Festival, New Forms Festival, FILE – Electronic

Language International Festival, and New Media Meeting. She has received awards from the Creative Capital, New York State Art Council, Princess Grace Foundation, the Platform International Animation Festival, and the Japan Media Arts Festival.

Software engineering for Sobecka's *Sniff* was developed by James George a software artist who creates interactive systems. He holds a bachelor's degree in computer science with a focus on experimental media arts from the University of Washington, Seattle. Combining video, generative graphics, and artificial intelligence, he investigates how technology can inform us of the nature of our perceptions. He has collaborated in the creation of experimental film, live video for dance performance, and implementation of interactive installations. He currently lives in Brooklyn, New York.

ADDITIONAL INFORMATION, IMAGES, AND RESOURCES

Beall Center: www.beallcenter.uci.edu
Sobecka: http://www.gravitytrap.com
Böhlen: http://www.realtechsupport.org/
Böhlen: http://www.realtechsupport.org/imgs/uwm_hi/bird-and-uwm_hires.jpg
Böhlen: http://www.realtechsupport.org/movies/uwm_canary.mp4
Glynn: http://www.ruairiglynn.co.uk/
Glynn: www.interactivearchitecture.org
Nunez: http://www.leonunez.com.ar

Tours by Beall Center interns are available free of charge during business hours.
Private group tours available by appointment; contact the Beall Center at (949)824-4339.