NAS ANNOUNCES 'SPECULATIVE DATA AND THE CREATIVE IMAGINARY: SHARED VISIONS BETWEEN ART AND TECHNOLOGY'

WASHINGTON -- A group exhibition titled "Speculative Data and the Creative Imaginary: Shared Visions Between Art and Technology" will be on view from June 4 through Aug. 24 at the National Academy of Sciences' headquarters at 2100 C St., N.W., Washington, D.C.

The exhibition features interactive computer installations, large format digital prints, and wearable technology, representing a confluence of research and creative practices that include the visual arts, design, architecture, performance, science, technology, and engineering. These works illustrate methods of creative inquiry and practice that have the potential to lead to new forms of knowledge.

The exhibition focuses on computer-mediated experiences, technology development, aesthetic practices, and cultural criticality. The works celebrate imaginary scenarios and real-time phenomena from outer space to cyberspace, collective space to urban space, public space to embodied space, and ecological space to dialogical space.

This exhibition is organized in conjunction with the Association for Computing Machinery's Creativity and Cognition Conference to be held in Washington, D.C., from June 13 through June 15. The exhibition is curated by Pamela Jennings, assistant professor of art and human computer interaction, Carnegie Mellon University, Pittsburgh. It is dedicated to outgoing National Academy of Engineering President Wm. A. Wulf, in recognition of his many years of support for the arts program at the National Academies. **An exhibition brochure is available upon request.**

Exhibiting Artists

• **Nell Breyer** (Massachusetts Institute of Technology, Cambridge) -- "i:move*," movement visualization studies
• **Sheldon Brown** (University of California, San Diego) -- "Scalable City," virtual reality visualization of land development
• **Donna Cox** (National Center for Supercomputing Applications, Urbana, Ill.) -- "Cosmic Visualizations"
• **Roger Dannenberg** (Carnegie Mellon University, Pittsburgh) -- opening event "Resound! Fanfares for Trumpet and Computer" and "McBlare Robotic Bagpipes"
• **Ernest Edmonds** (University of Technology, Sydney, Australia) -- "Shaping Forms Series," movement visualization studies
• **Tiffany Holmes** (School of the Art Institute of Chicago) -- "7,000 Oaks and Counting," energy consumption monitor
• **Pamela Jennings** (Carnegie Mellon University, Pittsburgh) -- "Sui Generis," digital prints
• **Greg Judelman** (Banff Center for the Arts, Alberta, Canada) -- "Flower Garden" and "Aurora," social network visualization

• **George Legrady** (University of California, Santa Barbara) -- "Global Collaborative Visual Mapping Archive II," image database
• **Marcos Novak** (University of California, Santa Barbara) -- "Allobrain@Allosphere," virtual reality fMRI studies
• **Sabrina Raaf** (University of Illinois, Chicago) -- "Test People," digital prints
• **Bill Seaman** (Rhode Island School of Design, Providence) -- "Hybrid Invention Generator," speculative invention simulator
• **Thecla Schiphorst** (Simon Fraser University, Burnaby, British Columbia, Canada) -- "exhale: breath between bodies," wearable technologies
• **Christa Sommerer** and **Laurent Mignonneau** (University of Art and Design, Linz, Austria) -- "Life Spacies II," a text-to-form coding system
• **Martin Wattenberg** (IBM Watson, Cambridge, Mass.) -- "Thinking Machine," artificial intelligence game engine

For more than 25 years, the Office of Exhibitions and Cultural Programs of the National Academy of Sciences has sponsored exhibitions, concerts, and other events that explore relationships among the arts and sciences.

Exhibition images:

Nell Breyer is a research affiliate at Massachusetts Institute of Technology's (MIT) Center for Advanced Visual Studies. Her research examines how we perceive motion, and her artistic work explores dynamic human histories through daily motion patterns, video, and live performance. **Jonathan Bachrach** is a research scientist and artist at MIT's Artificial Intelligence Laboratory studying sensor networks, robotics, multimedia, programming languages, and new artistic platforms.

Their interactive video installation, "I:MOVE," explores how movement is perceived through motion capture, video processing, and live interaction. The image at left is a still from the video.

Martin Wattenberg is a researcher at IBM whose work focuses on visual explorations of culturally significant data. He is known for his scientific and applied work in the field of information-based digital artwork. In his work, the mathematical underpinnings of a computer program are not simply tools used to create art; they are the core of the artwork themselves.

"Thinking Machine 4," (pictured to the right) is artifical intelligence software that explores the invisible, elusive nature of thought. The user plays chess against a transparent intelligence, its evolving thought process visible on screen.

A map is created from the traces of thousands of possible futures as the program tries to decide its best move. Those traces become key to the invisible lines of force in the game as well as a window into the spririt of a thinking machine. It illuminates the thought process as an evolving series of choices.
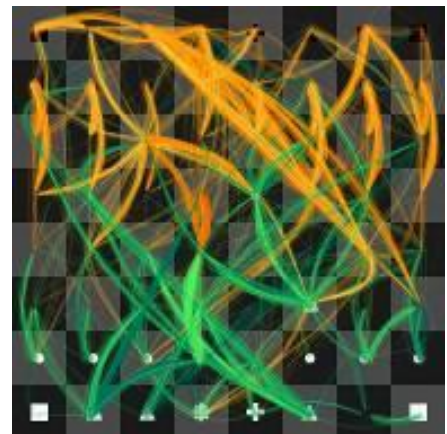
Marcos Novak teaches media and virtual architecture at the University of California, Santa Barbara (UCSB). Drawing upon architecture, music, and computation, and introducing numerous additional influences from art, science, and technology, his work intentionally defies categorization. He is a pioneer of the critical consideration of virtual space as place and architecture, and of the use of genetic and generative computation in design.

This image to the left is from virtual reality environments and images based on fMRI brain scans. It was prepared for use in the Allosphere, a soon-to-open three-story research chamber located at the Nanosystems Institute at UCSB. The Allosphere will create an immersive environment for presenting and interacting with

For print-quality images, contact Alana Quinn, 202-334-2415 or <u>aquinn@nas.edu</u>

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