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PROJECTS FOR DEEP SPACE AND DEEP TIME COMMUNICATION

Abstract

In this paper the author will present art projects for a robotic mission to the Moon in 2012 that implicate deep space and time communication and associated research. These projects are being developed at the STUDIO for Creative Inquiry at Carnegie Mellon by interdisciplinary collaborating teams, the Moon Arts Group and Deep Space Signaling Group. These projects explore issues relating to not just Lunar space/time but also to very deep space interstellar and inter-galactic communication, billions of miles and billions of years.

One project is called "Moon Bell" - sonified and visualized, electromagnetic waves. The robot upon its arrival on the Moon will initiate a broadcast-burst (radio waves) that are received by a radio-telescope and then reflected from the earth by short-wave broadcast back to the Moon in an ever expanding reflected resonance that is then heard and shared globally through the internet, ultimately involving earth resonances (seismic, Schumann atmospheric resonances, stratospheric radio wave potentially combined with solar radio-wave activity, galactic and cosmic radio wave activities.)

The Group is developing computer software ("The Lunar Lyre") to provide the basis for a sustained both sonic and visual set of radio-wave reflections between the Earth and the Moon involving advanced technologies and artistic/musical ideas. This project will be an extended long-term presence on the internet for a global audience. The Lunar Lyre allows the detailed analysis of the interaction of the signals and their interference patterns.

Another project that will be described is "Moon-Matrix of Languages" This project involves the robot, its lander and the lunar surface would and would introduce a series of symbols to facilitate communication with another intelligence, even in the absence of prior common language, physical or temporal proximity, or social conventions. This dramaturgy of symbolic languages is a linguistic-symbolic DNA including sets of interrelated universal symbols that can be used to decode languages-mathematical, linguistic, geometries, music, scientific and other codes expressed at different scales – from nano/micro to cosmic/macro, in different placements/positions on Earth, on the Moon, between and beyond, with different forms of interaction and iterations.

Both of these projects have research implications for other already accomplished projects and other proposed deep space communication projects of the members of the Deep Space Signaling Group.