

<http://www.space.com/searchforlife/090521-seti-earth-speaks.html>

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posted: 21 May 2009, 09:43 am ET



For nearly fifty years, the Search for Extraterrestrial Intelligence (SETI) has used radio telescopes to scan the heavens for signs of alien technology. But scientists still do not agree about whether we should reply to an extraterrestrial signal, and if we do, what we should say. To help answer these questions, the SETI Institute has launched Earth Speaks, a research project to collect messages online from people around the world.

"Earth Speaks invites people to ponder the question, 'What would you say to an extraterrestrial civilization?'" said Thomas Pierson, Chief Executive Officer of the SETI Institute in Mountain View, California. "By submitting text messages, pictures, and sounds from across the globe, people from all walks of life will contribute to a dialogue about what humanity might say to intelligent beings on other worlds," he explained.

The occasion for the launch was the visit to the SETI Institute by Kamau Hamilton, a sixth-grade student from the Central Harlem Montessori School, whose winning idea for the Kid's Science Challenge inspired the SETI Institute to expand Earth Speaks to include "Sounds of Earth." Kamau was a special guest at the Institute's annual open house, Celebrating Science, on May 16th, 2009.

Now all people can submit their messages to Earth Speaks, a website where they also enter labels or "tags" to help researchers categorize the messages. By studying the tags used by many different people, scientists will identify the major themes that run through thousands of individual messages. That sets the stage for creating interstellar messages that begin to portray the breadth and depth of the human experience.

When visitors arrive at the website's homepage, they see a "tag cloud" that shows the most frequently used tags in the largest fonts. For example, the tags "greetings," "friendship," and "hope" are each linked to two or more messages, and thus appear larger than tags used by only a single person. By clicking on each tag, viewers can see or hear the full message.

"Earth Speaks uses technology of the twenty-first century to understand human aspirations around the globe in ways not possible before," said Jill Tarter, Director of SETI Research at the SETI Institute. "This is potentially a huge resource that can be explored to look for cultural universals."

By tracking which country each message comes from, researchers can look for themes that are common across cultures, as well as themes that vary from nation to nation. As additional messages are submitted and the tag cloud becomes increasingly dense, a map of the world will be displayed, with "push pins" showing where each message originated.

Voice of the Earth

Chicken sizzles on a grill, metal bracelets jangle against each other, a crow caws as an airplane flies overhead, and to the ears of Kamau Hamilton, the Earth has found its voice. These are a few of the sounds Hamilton recorded before and during his visit to the SETI Institute. As a winner of the Kids' Science Challenge, an educational program funded by the National Science Foundation, Hamilton has been pondering and blogging about how to say something intelligible to a civilization separated by the vast distances of interstellar space.

Each year, the Kids' Science Challenge invites third to sixth graders to pose questions to teams of scientists, who help the students answer their questions. Hamilton's question to the SETI Institute team was, "How can we communicate with extraterrestrials if we don't know if they have a language similar to ours and if we don't know their communication system? Is it possible to send communication symbols that might be found on both Earth and other planets?"

As a starting point, Hamilton suggests identifying sounds that may be as familiar to extraterrestrials as they are to humans. "A common variable to the Earth and other planets would be physical environmental sounds," he argues. "Should we send sounds of our conditions, such as rain, storms, lightening, and the ocean?"

As his project has progressed, Hamilton has emphasized the sounds of his neighborhood, such as the rhythmic chopping sounds of a street vendor preparing grilled chicken, the metallic rattling of his teacher's bracelets, and the footsteps of classmates walking down a staircase.

During his visit to the SETI Institute, Hamilton also began creating a soundscape of Silicon Valley. These recordings capture elements of nature as well as technology, sometimes simultaneously, as in a sequence of a crow calling out, followed by an airplane on its way to Moffet Field, a local civil-military airbase.

Though a few of the sounds recorded by Hamilton are being identified publicly with special consent from him and his mother, the identity of other participants in Earth Speaks will remain confidential, following a standard protocol to safeguard privacy.

An open debate

Questions about message content take on increased importance as the SETI Institute's Allen Telescope Array (ATA) begins a new phase of research with its galactic plane survey for radio signals from other civilizations. As search technology becomes more powerful, the chances of detecting distant civilizations beyond Earth increase.

The SETI Institute currently has no plans to transmit messages into space. "The question of whether we should send intentional messages to other civilizations is too important to be answered hastily," said Pierson. "Through Earth Speaks, the SETI Institute also hopes to foster an open and thoughtful debate about the pros and cons of sending messages to other worlds."

Earth Speaks is founded on the belief that first impressions matter, especially when there is no quick way to correct them — which could well be the case when your partner in conversation lives trillions of miles away. Indeed, the initial messages we send to an extraterrestrial civilization could set the tone for a conversation lasting hundreds or thousands of years. It is only fitting, then, that as we ponder how we would represent humankind to another civilization, the decision should be made by people around the world.