

39th SYMPOSIUM ON THE SEARCH FOR EXTRATERRESTRIAL INTELLIGENCE (SETI) – The
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WHAT SHOULD WE SAY TO EXTRATERRESTRIAL INTELLIGENCE?: AN ANALYSIS OF
RESPONSES TO "EARTH SPEAKS"

Abstract

If scientists engaged in the Search for Extraterrestrial Intelligence (SETI) detect a signal from an extraterrestrial civilization, one of the most pressing issues facing humankind will be "Should we reply, and if so, what should we say?" Building on an infrastructure that the SETI Institute used to gather over 50,000 messages from around the world to send onboard the Kepler mission, Earth Speaks invites people to submit online their text messages, pictures, and sounds, as they ponder what they would want to say to an extraterrestrial civilization. Participants for the study have been recruited from more than 50 countries, from all walks of life. By tracking demographic variables for each person submitting a message, as well as the "tags" or labels that summarize the content of each message, we have identified commonalities and differences in message content that are related to such factors as nationality, age, and gender. We identified, via quantitative analyses, the most frequently cited themes among messages by (a) comparing the internal relative frequency of themes and associated phrases found in the submitted messages, (b) classifying themes according to whether or not their content, geographic distribution, and frequency indicated that they were either species typical or culturally rooted, and (c) comparing individual word ranking among the messages to the word ranking found in the British National Corpus. We then analyzed these themes qualitatively to identify and describe the specific characteristics of each of the major themes. Finally, we used a semantic mapping procedure to determine the relationship between identified themes and to collapse themes when appropriate. This procedure is modeled after the synonym maps presented by the Mathematica analytical software program.