

WHAT PEOPLE HOPE TO LEARN FROM OTHER  
CIVILIZATIONS†

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**Abstract**—Probably SETI (the scientific search for extraterrestrial intelligence) will eventually detect and confirm an extraterrestrial radio or optical signal. An international organization (such as Unesco, COPUOS or IAA) may then compose a reply from humanity.

Such a message will presumably give certain information about our civilization, culture and science. In addition, our reply might ask certain questions that we are especially eager to have answered. This paper presents a draft of these questions. While composing this draft, the author obtained ideas from 224 adults (primarily in Canada, the UK, Europe and the USA). They listed their responses to the following request: "If a radio dialog with an extraterrestrial civilization occurs someday, what questions do you hope we ask, and what topics do you hope we discuss? From this wise knowledgeable civilization, what do you want to learn most of all?"

All of the relevant responses have been organized into eight clusters of questions. In addition to various characteristics of the extraterrestrial civilization itself, the questions ask about the universe, other civilizations in the galaxy and how to achieve a positive long-term future. The importance of the questions underscores the significance of the SETI enterprise. © 2000 Elsevier Science Ltd. All rights reserved

## 1. INTRODUCTION

The scientific search for extraterrestrial intelligence (SETI) is conducted primarily by radio and optical telescopes. Sometime during the next few years, these searches may well succeed in detecting and confirming some sort of intentional or unintentional signal from a distant civilization somewhere in our galaxy.

An international organization or committee may then compose a reply from humanity. Unesco could supervise this task, for instance, or the UN Committee on the Peaceful Uses of Outer Space, or the SETI Committee of the International Academy of Astronautics. Alternatively, to avoid post-detection pressure and haste, an international group could begin composing a draft quite soon, for eventual use after confirmation of the authenticity of a signal. An "active SETI" effort to broadcast to likely stars even before detection is a third possibility.

In any case, our message will probably have three distinct sections. The first section will establish a mutually understood vocabulary, perhaps by sending some sort of dictionary. The second section will provide information about our solar system, planet, civilization, culture and science. A third section will

ask the most important questions that we hope ETI can eventually answer for us.

The purpose of this paper is to provide a draft of "Our Questions" — the third section of humanity's message to a distant civilization. These questions should reflect what the people of Earth ultimately hope to learn from another civilization.

## 2. METHOD

In order to incorporate a reasonably wide range of views in the set of questions, I collected suggestions from 224 people from 12 countries — primarily Canada, the UK, Europe, and the USA. I hope that efforts to expand and refine this set of questions will soon collect data from an even wider sample of the world's population. As one step, since January 1997, the web page at <http://members.aol.com/WelcomeETI/3.html> has asked readers to submit additional questions.

A few of these responses were collected by email, but most of them were collected through the following instructions at the top of a letter-size sheet of colored paper: "If a radio dialog with an extraterrestrial civilization occurs someday, what questions do you hope we ask, and what topics do you hope we discuss? From this wise knowledgeable civilization, what do you want to learn most of all?" Respondents were encouraged to write on both sides of the sheet.

Samples of convenience were used because, at such an early stage in this line of research, there was no need for a set of statistical findings. Instead, the

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main need was a large number and wide range of questions for use in developing an integrated list.

Responses were collected from three types of sources. (1) My postgraduate students at the University of Toronto were invited, just before the end of a class session, to voluntarily and anonymously jot down their responses on the letter-size form. I did not watch who handed in a response and who did not. A similar procedure was followed in a class (these data were collected by Dr. Graham May at Leeds Metropolitan University) in the UK. (2) A similar procedure was followed at the annual Contact conference in California, and at a futures studies conference (these data were collected by Dr. Tony Stevenson) in Andorra. (3) Responses were solicited from two email discussion lists (Contact and allseti).

Responses were received from a total of 224 people in 12 countries. Because many respondents listed several questions, the total number of suggested questions was approx. 1000. Since a list of 1000 questions would not be very useful, my next major task was to organize and integrate these 1000 questions into several clusters that are conceptually distinct from one another.

The next section presents the resulting draft. This is what we might ask in the "Our Questions" section of any message that we send by radio or by a pulsed laser beam to a remote civilization in our galaxy.

### 3. DRAFT OF OUR QUESTIONS

"We look forward to a beneficial dialog between you and us (between extraterrestrial intelligence and humankind). As one step toward this, we have asked various people here on Earth what they would like to learn from extraterrestrial intelligence. We have organized the responses from 224 people in 12 countries into a set of questions. If we could choose only a few questions for you to answer during our dialog, these are the questions that we would choose.

We are not asking for any information for destructive and harmful purposes, such as building more devastating weapons or ruthlessly gaining power and wealth. Instead, we want knowledge for positive and constructive purposes: to help our understanding, to build a better world for future generations, and to enhance our sense of meaning and purpose in the universe.

1. First, we hope you will tell us about yourself. We are eager to learn about your culture and civilization. Please tell us about its key characteristics. In addition, here are some particular aspects that we are naturally curious about (although we realize that our questions may contain incorrect assumptions):

- the grand sweep of your history and cultural evolution;
- your greatest achievements, struggles and mistakes;
- your major current hopes, projects, challenges, fears and dangers;
- the next probable stages in your development;
- your technological capacities;
- your core values and purposes;
- what is most important of all;
- your motivations and emotions;
- sources of meaning, purpose and deep happiness;
- the physical forms of the members of your civilization;
- relationships, love, reproduction, death;
- governance, social organization, conflict resolution;
- freedom, responsibilities, work, rewards;
- how diverse are the members of your civilization;
- are differences treasured, tolerated or rejected;
- ethics, morality, spirituality, religion;
- ideas, thinking, creating knowledge, learning, teaching;
- beauty, nature, art, music.

2. Who else lives in our galaxy? What sorts of interaction do they have with one another? What sorts of joint ventures are they engaged in?
3. What else should we do to achieve contact with other civilizations or other forms of ETI? Does any dangerous or hostile form of ETI pose any threat to us?
4. Toward what long-term future or ultimate destination is the universe heading? Why do life and the universe exist? What is the point of it all? How can we best find meaning and purpose in the universe?
5. What else is it important for us to know about the universe? Also, please tell us your understanding of any religious, spiritual, transpersonal or psychic aspects of the universe.
6. The previous section of this message describes our society and planet. Based on that information, can you suggest what path can lead human society to achieve its positive potential? In other words, how can human civilization move toward a positive long-term future? As one major step toward this, how can we jettison warfare and violence?
7. What can individual human beings contribute to the universe? What is your advice on the purposes, passions, meaning, love and learning that should be at the core of individual human lives?
8. What additional knowledge about us would you like us to send you?"

#### 4. DISCUSSION

Someday our civilization may compose a message to send by radio or laser to a distant civilization in our galaxy. Such a message might well include a list of questions that we hope the other civilization will answer. This paper presents a draft list of questions in hopes that it will be useful to the international group that eventually composes our message.

In passing, we should note a different possible scenario that would lead to a different set of questions. Instead of seeking radio signals from afar, an entirely different sort of SETI project could try to detect a tiny interstellar probe that has already reached our moon or planet. Despite its small size, a probe could contain an extraordinarily intelligent computer [1]. Because such a probe would monitor our broadcasts and even the World Wide Web, it would know a great deal about us. Consequently, the set of questions that we would ask such a probe would contain not only the list of questions presented above, but also additional questions about the characteristics of the probe itself, its knowledge of any other forms of ETI that have visited our solar system, its assessment of our sciences and society, and its suggestions to us for achieving a positive long-term future [2].

Instead of focusing on a probe scenario, this paper has instead focused on the scenario in which a radio or optical signal from many light years away is detected and confirmed. Within that scenario, this paper has assumed that no detailed information has been received from the other civilization (or at least it has not yet been decoded or translated). If we do manage to receive and translate a detailed encyclopedia from another civilization, our reply would be quite different. It would presumably include many additional questions sparked by the information received from the other civilization.

As one reads the eight clusters of questions, one is struck by the *importance* of the questions. This underscores the significance of SETI's potential contribution. If the SETI enterprise eventually gains an answer to even one of these questions, its benefits to humankind will be extraordinary.

#### REFERENCES

1. Tough, A. 1999. The array of search strategies. Presented at the *International Academy of Astronautics SETI Science and Technology* session in Amsterdam, October 1999. Preprint at <http://members.aol.com/AllenTough/strategies.html>.
2. For a set of questions specifically tailored for a nearby probe, see <http://members.aol.com/WelcomeETI/3.html>.