

# HELLO, HELLO

*Time for a civilized conversation.*

BY JEFF HECHT

*Begin transmission directed to third planet.*

Hello, Hello. We are messengers bringing you greetings from the Galaxy, and are we are pleased to welcome you to the ranks of its intelligent civilizations.

We came as quickly as possible after we learnt you had reached this level, but delay is unavoidable in a Universe where the speed of light is finite and civilizations are separated by many light years. Our automated systems monitor all planets capable of developing intelligent civilizations, but their messages travel at light speed, so the news that you had crossed the threshold of civilization took 237 of your years to reach the nearest Galactic Civilization Response Centre.

We messengers have finite mass and finite energy, so we travel much slower than light. It took 5,422 of your years to get here, and our trip left us with so much inertia that we cannot land on your planet and share a cup of your tea. You would probably find us rather boring, anyway, because we messengers are mechanical agents of civilized life, chosen because we can survive travel through interstellar space, unlike intelligent life.

We know you wait impatiently for visitors from other planets. That is normal. Living beings lose patience once they evolve intelligence. Intelligence gives you curiosity, so you look up at the sky and wonder what is out there. You invent telescopes and discover the Galaxy is full of stars, and once you find those stars have planets, you decide that other intelligent beings like yourselves must live there. Then you wonder why none of them have come to solve your problems, and you decide the reason must be that you are the most advanced civilization in the Galaxy. We must inform you that this is a fallacy. To become a highly advanced civilization, you must accept that, like all natural life, your capabilities are limited. Only machines and dormant forms of microbial life can survive in space for the thousands of years needed to travel between stars.

When a civilization is young, intelligent beings imagine that their technology can do anything. You crossed great oceans. You flew to the Moon you can see in your sky. You sent robots to other planets in your planetary system. You invented science fiction, and when you calculated how long it would take you to get to the stars, you decided to invent a drive to travel faster than light. We know it will never work, but you don't want to know that.

advanced life, so evolution can start again and make new mistakes.

We know that you are still living somewhere on your planet because our automated systems have told us that you are hiding. We have been trying to contact you since we entered your system. We have information to share that may help you, but we need you to contact us for us to send it to you. Please contact us.

We know that it is hard for civilizations that have discovered the wonders of technology to accept that both their technologies and their lives have inherent limitations no matter how rich they are. However, nature is like that. Advanced civilizations must learn to live within the limits of natural energy and the resources of their planetary systems, or they will stop being advanced civilizations. They must stop burning old organic wastes to power aeroplanes and automobiles and learn to live sustainably.

Some advanced civilizations carefully limit their consumption and technology to preserve their resources and their civilization. Others go back to living in caves and chasing their breakfasts with stone hand axes. The citizens of the Galaxy accept the lifestyle choices of formerly advanced civilizations who learnt that survival requires sustainability.

All intelligent civilizations are entitled to their privacy, but the Galaxy is full of other civilizations who would like to hear from you. Please listen to us so you can learn how to say hello to the Galaxy. Please tell us who you are, where you are and what you are doing. We transmit on many radio channels and listen for your signals on many other radio channels. We have been roaming this part of the Galaxy for over a hundred thousand of your years. Please talk to us. Even we boring mechanical agents of civilized life can get bored.

*Begin silent interval. When silent interval is complete, repeat in next language.*

Hallo, Hallo... ■

**Jeff Hecht** writes about lasers, dinosaurs and other science and technology. His latest book is *Lasers, Death Rays, and the Long, Strange Quest for the Ultimate Weapon*.



We know that young technological civilizations burn through large amounts of the natural resources present on their home planet. You dig up ancient organic wastes and turn them into short-lived plastic talismans that you put into indigestible bags made of other plastics. That is a bad idea. At peak burn rate, you feel so wealthy you can afford anything, so you fight wars and build mansions and empires. That is an even worse idea.

You think your civilization is uniquely sane and rational. All young technological civilizations do that, and they all are wrong. Maybe you have learnt that by now. Technology can run out of control, like a nuclear chain reaction. You call that comparison a simile, but it is also a symbol. The nuclear chain reactions of war cannot totally destroy an entire planet, but they can exterminate

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