

Voyager Beware

Computers and the Internet have thrown up many questions on time, distance and space, the real and the false. Intellectually these questions are indeed interesting, but what is happening to human physical interaction? Are we becoming ever more isolated? Ken Goldberg warns of the dangers of losing the human touch.

By Alicia Miller

Ken Goldberg's art defies simple description. It is sculptural, it has involved painting at times, and it is always concept-driven. With a background in computer science and engineering, he is one of a growing number of artists who have been using the Internet as their primary medium of expression, exploring the fertile territory where art and technology meet. An instructor in industrial engineering at the University of California at Berkeley, Goldberg has also been engaged in an artistic and deeply philosophical investigation of the means and effects of technology's mediation of our contemporary life.

Goldberg cites Walter Benjamin's 1936 essay, *The Work of Art in the Age of Mechanical Reproduction*, as a seminal influence on his art process. It raised issues of authority, authenticity, access, and agency that would become the primary focus of Goldberg's artistic output. Goldberg first read the essay while working on an early series of paintings created by a robotic arm. He had been using the arm in a series of manipulation experiments for his robotic research and decided to program a series of drawings for it to execute with paint. The process was anything but smooth; the robot would drip paint, its brush would run out, and other random effects would occur. But for all intents and purposes, it was reproducing the paintings Goldberg had programmed it to create.

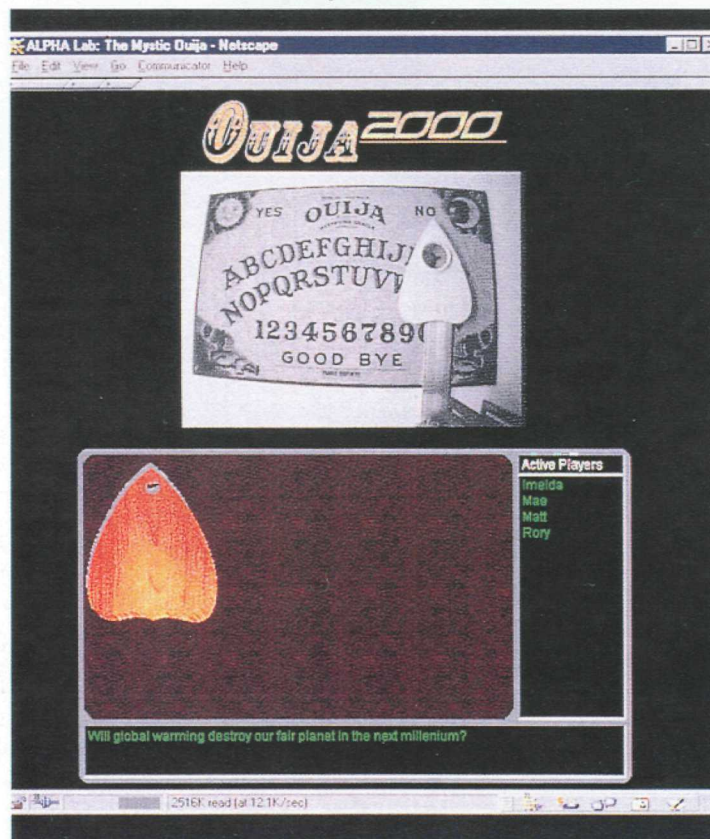
In the end, however, Goldberg found that the paintings were ultimately unsatisfying and unsuccessful

as works of art. Even though they didn't look mechanical in the way that most computer art did and they replicated the process of painting, something remained evidently lacking in their creative force. To Goldberg, what seemed to be missing was the painting's "aura," that element which Benjamin defines as unreproducible, and which degrades in a work of art with reproduction. This fascinated Goldberg. "In a way, it was a means of experimenting with the aura; to say, let's examine this thing which has all the ingredients of a painting," he says, "but it's still missing something, and let's try to identify what that is. That's really what I'm interested in."

With the rise of the Internet in the 1990s, Goldberg found an ideal space for exploring the issues which his experiments in robotic painting had instigated. In particular, he became interested in the Internet's ability to facilitate a proximal relationship between viewer (or more appropriately for the context: end-user) and the art object or experience. In doing so, the Internet makes unavoidable questions of technological mediation by acting as an artificial interface between end-user and object, which are separated into two distant physical spaces. Goldberg most directly addressed this question in his recent collaborative piece (with Bob Farzin), *Dislocation of Intimacy* (1998),

which was exhibited in a group show at the Catharine Clark Gallery in San Francisco.

Dislocation of Intimacy has two components: A large minimalist black box notably plugged into an electrical outlet which occupies physical space in a publicly accessible gallery or room; and a Website (www.dislocation.net—no longer on-line) whose URL is given on small white business cards located near the black box. You were given the option to visit the black box physically, which does have a resonant presence particularly when it quietly hums with some inner activity as it does from time to time. Or you could have logged on to the website, and experience from a separate and distant place, what is purportedly occurring in the interior of the box—that low whirl you hear in the box's presence. In essence, what you were offered at the Website was

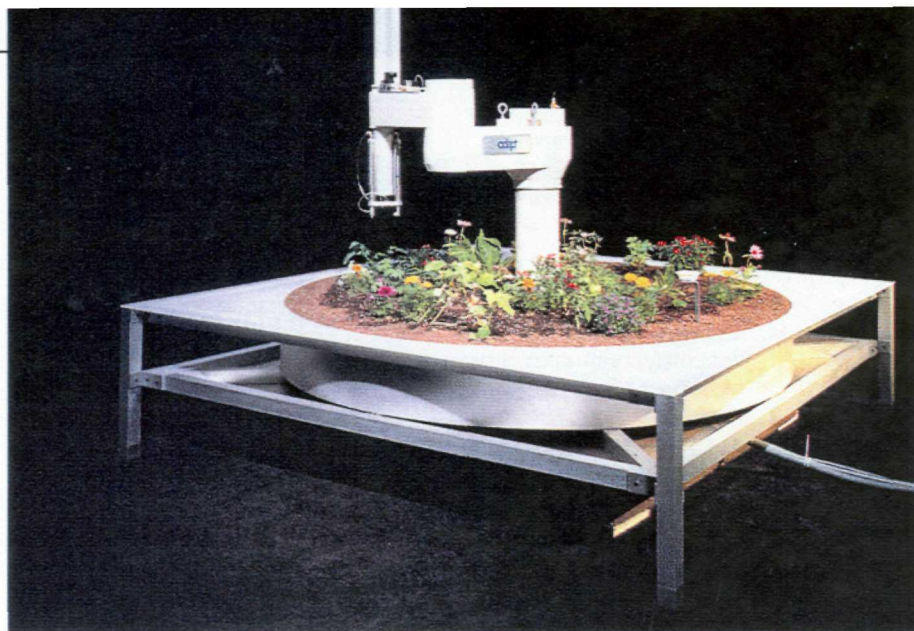


Ken Goldberg, *Ouija 2000*, 2000, mixed media and custom electronics, dimensions variable. Photograph: Courtesy of the Catharine Clark Gallery, San Francisco.

a series of shadowgram images created by lights activated inside the box from your computer terminal. Or at least this is what you were to believe. It's entirely possible that you were simply viewing prerecorded images posted on the page. You had no way of verifying the situation, because you cannot hear or see the black box which is somewhere else altogether. Goldberg's and Farzin's title is a clever metaphoric description of the viewer/end-user's experience. Your only knowledge of the interior space of the box and the experience it purportedly offers is mediated by the technology which allows you the access in the first place. The intimacy of immediate experience is dislocated through the computer interface.

Goldberg has immersed himself in an area which he has called "telepistemology," the study of how knowledge is determined when we are wholly reliant on machines for our information and direct sensory information is displaced by distance. It is an area which the Internet and robotics has reopened once again as a relevant field of inquiry. Goldberg writes in a forthcoming book on the subject, *The Robot in the Garden* (MIT Press, 2000), which he has edited, "One of the great promises of the Internet is its potential to increase our access to remote objects." But what you must always remember, Goldberg further warns, is it "...provides widespread access to remote agency without relying on a trusted institutional authority, i.e. no one's monitoring the truth of what you find or experience on the Internet." For Goldberg, there is much room for deception, and so the question of what you really know is transformed into what you believe you know. It is all about trust and trust is vulnerable to manipulation in this case.

Telegarden (1995), perhaps Goldberg's best known work, was fraught with the questions of truth and authenticity. End-users logging on to the site could plant and grow a seed in a distant garden with the help of a robotic apparatus. As with any gardening endeavor, a plant's success or failure depended on the attentive care of its tender who had to visit the site each time it needed to be watered. Goldberg found that people became attached to the plants they grew and expressed an adamant need to know that their plants did indeed grow somewhere out there in the world. They needed to know that the visual images on offer at the Website had not been fabricated. At the other extreme,



Ken Goldberg, *Telegarden*, 1995, plants, soil water, and custom electronics, dimensions variable. Photograph: Courtesy of the Artist.

Goldberg arrived one day to find the garden flooded by an end-user who didn't believe the set-up was real and had sent repeated watering messages to the site.

Recently mounted in Japan, *Mori* (1999) is a circular opening in the floor of a darkened room where an image of the earth's seismic activity can be glimpsed on a glowing monitor. The information for this seismic image travels via the Internet from California where it is measured to this Tokyo room. The room reverberates with a score of this seismic activity orchestrated from prerecorded samplings of a range of sound-waves, trains, avalanches, or rain.



Ken Goldberg, *Mori*, 1999, mixed media Photograph: Courtesy of the Artist.

Mori offers a visceral experience of the earth as an active being.

Also created for the Arts Electronica Center in 1999, *Telezone* (1999) allows end-users to create a built environment using a robot which is controlled via the Internet, a little like virtual building blocks or Legos®, except that your constructions actually exist in real space somewhere else in the world. Webcams allow you to view the progress of your construction from a range of viewpoints and if that is not already enough, you can also get digital plans for posterity's sake. In an upcoming collaborative project entitled *Ouija 2000*, Goldberg will explore the commercialization of spirituality and the occult. Goldberg feels the Web is the ideal space to launch a 21st century version of the popular parlor game *Ouija*® because of the curious mixture of reality and imagination that characterizes it.

Goldberg wants his work to hone a healthy skepticism about the Internet and to remind people of the importance of physical presence. Goldberg says, "At root, I'm trying to resist this romance that we have with the computer and the Internet. On the one hand, I'm equally captivated and seduced, but my second instinct is to beware of the danger of them...There are fundamental things that we will never be able to overcome at a distance, and there is something about proximity that is very important...[The computer and the Internet] undermine the notion of a commitment to one-to-one interaction... and that's irreplaceable." Δ

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