

Learning to Love Robots that Care

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An Electronic Data Processing Grandma

Can you find love in a box? Or perhaps in an advertisement in the pages of *Modern Science* magazine? Would you be willing to entrust the care of your children to an electronic grandma? And just what is an electronic grandma anyway?

That's the question that Anne raises when confronted with the possibility of an electronic data processing system in the shape of an elderly woman. In "I Sing the Body Electric," Anne and her siblings Karen and Tom have been left bereft after the death of their mother and while their father George is a loving parent, he's too busy with work to give them the attention they need. Tom shares with his father the latest edition of *Modern Science* and an advertisement from Facsimile Limited.

George: "I sing the body electric"? Let me see that, Tom... "To parents who worry about inadequate nurses and schools, who are concerned with the moral and social development of their children, we have perfected an electronic data processing system."

Anne: An electric? Well, what does that mean, daddy?

George: "An electronic data processing system in the shape of an elderly woman built..."

Anne: A woman?

George: Yeah. Sort of a robot. "...a woman built with precision. With the incredible ability of giving loving supervision to your family."

Anne: Can they build a machine like a human?

George: I don't know.

Anne: It doesn't...it doesn't sound so good.

George, Anne, and her siblings are confronted with a dilemma that has only gotten more pressing since the Ray Bradbury-authored *Twilight Zone* episode aired in 1962. Does leaving your children entrusted to the care of an electronic grandma sound "not so good"? Today's harried, over-worked parents might be thinking the same thing as Anne, but this doesn't always stop them from handing over their smart phones to their crying children, or maybe even asking Alexa to entertain the rowdy kids. Or perhaps they're contemplating buying a Paro for their elderly and ailing parents. Described as "an advanced interactive robot developed by AIST, a leading Japanese industrial automation pioneer," Paro is a robotic baby seal designed to help soothe and comfort patients with Alzheimer's and dementia. As Amy Harmon noted in a *New York Times* article on the use of Paro in nursing homes, these devices are "adding fuel to science fiction fantasies of machines that people can relate to as well as rely on. And they are adding a personal dimension to a debate over what human responsibilities machines should, and should not, be allowed to undertake."¹ (Harmon 2010).

"It doesn't...doesn't sound so good."

¹ Harmon, A. A Soft Spot for Circuitry. *New York Times*, July 4, 2010, page A1.

Technology theorist Sherry Turkle calls such devices “relational artifacts.” They are machines that display behaviors that make people feel as though they are dealing with sentient creatures that care about their presence, relational robots built with psychologies and needs of their own. As Turkle notes, they call forth the human desire for communication, connection, and nurturance. These days, we are surrounded by a virtual flood of such relational artifacts, from Furbies, Aibos, and Tamagotchis, to robotic dogs, humanoid robots such as Cog, Kismet, BINA48, and, yes, even a Japanese therapeutic seal. And then of course there is Alexa, Siri, and “hey, Google” to attend to us and care for our needs.

Magazines such as *The New Yorker* and *Wired* feature articles about robots that care and embracing intimacy with androids, raising difficult and potentially troubling questions about how we should respond to the growing recognition that our social lives are increasingly mediated by technical artifacts in which the boundary human and thing is disappearing. Our television shows and movies, too, are populated with story lines in which sociable robots come to care for us and assuage our loneliness, from AMC’s *Humans* to Jake Schreier’s *Robot & Frank* (2012), and Charlie Brooker’s *Black Mirror*, one of whose most entrancing episodes, “Be Right Back,” features a bereaved woman using her dead boyfriend’s social media feed to order up a replica. Should we be concerned? Do you share Anne’s trepidation, “It doesn’t...doesn’t sound so good”?

Robert and Linda Sparrow think we should be concerned. In “In the hands of machines? The future of aged care,” they argue that “not only is it misguided to believe that robots could offer care or companionship to older persons but that the desire to place them in these roles may

actually be unethical.”² Alternatively, in “How I Learned to Love the Robot,” Dutch philosopher of technology Mark Coeckelbergh spins a fictional scenario straight out of *The Twilight Zone* in which Grandpa’s care is administered by a retinue of robotic helpers including CareCap, Robodog, and NanoCare. He concludes that our evolving human-robot relations demand that we change our attitudes and embrace the future of robots that care.³

While our love affair with the relational artifacts and sociable robots populating our lives may be relatively new, these themes were regularly explored in *The Twilight Zone* more than fifty years ago. Before the first relational artifact ever showed up on the scene—that would be Eliza, a computerized psychotherapist created in 1964 by Joseph Weizenbaum—Rod Serling and crew were contemplating a future in which we fell in love with robots and electronic grandmas. *The Twilight Zone* was prescient in raising questions that have become more pressing today as our technologies evolve and it offers an instructive take on the complex issues raised by robots that care for us.

Robots in the Land of the Lonely

² Robert Sparrow and Linda Sparrow. “In the hands of machines? The future of aged care.” *Minds and Machines*. (Volume 16, 2006), pp. 141 – 161.

³ Mark Coeckelbergh, How I learned to Love the Robot: Capabilities, Information Technologies, and Elderly Care. In *The Capability Approach, Technology and Design*, edited by I. Oosterlaken and J. van den Hoven. Dordrecht: Springer: 2012), pp. 77-86.

This debate was in fact central to the very first episode of *The Twilight Zone* to go before the cameras, the 1959 episode “The Lonely,” in which James A. Corry is in his fourth year of a 50-year sentence of solitary confinement on an arid asteroid nine million miles from Earth. And he’s profoundly lonely. The captain of a supply ship, Allenby, has tried to alleviate Corry’s loneliness by bringing him books, playing cards, the parts to an antique automobile, but these have provided only temporary solace. He’s a man dying of loneliness, Serling tell us.

But then on one supply run Allenby secretly brings him something entirely different: Alicia, a robot built in the form of a woman. The manual that accompanies Alicia states that “physiologically and psychologically she is a human being with a set of emotions and a memory track. The ability to reason, to think and to speak.” Initially Corry is repulsed by Alicia and feels revulsion at this thing, exclaiming that he doesn’t need a machine, comparing her to his antique automobile: “You’re just like this heap. A hunk of metal with arms and legs instead of wheels. But this heap doesn’t mock me the way you do. It doesn’t look at me with make-believe eyes or talk to me with make-believe voice.”

Finally, in a heated exchange with Alicia, Corry roughly rejects her, throws her to the ground, and is seemingly intent upon striking her. Whereupon she cries and exclaims that she can feel loneliness too. Alicia at this moment steps out of the category of thing or object and becomes a relational artifact, a more engaging and engaged artifact than Corry’s antique automobile has ever been. Overcome, Corry reaches out to Alicia, beginning a strange relationship with her that lasts eleven months. As he notes in his journal, “It’s difficult to write down what has been the sum total of this very strange and bizarre relationship. Is it man and

woman, or man and machine? I don't really know myself...I'm not lonely anymore. Each day can now be lived with. I love Alicia. Nothing else matters." The story takes a dark turn, though, when Allenby returns with news of Corry's pardon. Corry's to be brought home but he can only take 14 pounds back with him aboard the spaceship. When Corry refuses to abandon Alicia—spoiler alert—Allenby shoots her (it?) in the face and as Alicia crumples to the ground Corry is shocked to see the wires and vacuum tubes now exposed behind her shot-off face. And thus the debate over relational artifacts, once endearingly broached, is brought to a violent conclusion. As Corry heads to Allenby's rocket ship and back to Earth, Allenby suggests it was all a nightmare.

Captain Allenby: Come on, Corry. Time to go home...It's all behind you. It's like a bad dream, a nightmare. When you wake up you'll be back on Earth. You'll be home.

James A. Corry: Home?

Captain Allenby: That's right. All you're leaving behind is loneliness.

James A. Corry: I must remember that. I must remember to keep that in mind.

Finding Solace in the Arms of a Robot?

Already in 1959 *The Twilight Zone* recognizes that in an advanced technological age we human beings, facing the existential crisis of our loneliness and solitude, will turn not to one another but to our technical artifacts for solace. Behind the conflict between Corry, with his love for Alicia and his lack of concern over whether she is a woman or a machine, and Allenby, who is willing to engage in violence to prove his point that Alicia is a mere thing, is a fundamental conflict over how to understand the role of relational artifacts in our lives, a conflict that if anything is more

pointed today. On the one hand, Alicia may presage a society in which the authentically human has been replaced by simulations, in which our closest ties are to machines rather than other human beings, our loneliness is assuaged not by the company of others but by robot companions, and our sovereignty and autonomy over technology disappear. When Corry is initially confronted with Alicia, he's repulsed and throws her to the ground, comparing her to his antique automobile, arguing that she is a lie, a simulation, not authentically human. Alicia, though, begins to cry and engagingly plays on his human vulnerabilities and his desire for companionship and he is ultimately taken in by this simulation.

On the other hand, Alicia may be the vanguard of a new way of thinking about human-technology relations, in which the boundaries between the two are made more permeable and we recognize that our congress with technology is an inherently human trait to be affirmed rather than denied. Maybe Corry comes to realize that his life is already inextricably intertwined with technology and that Alicia is simply the most recent and most obvious indication of this? After all, he's imprisoned for causing a death following an automobile accident. His prison is an arid and desiccated asteroid nine million miles from Earth. His imprisonment is enabled by a rocket ship that brings him daily rations and an antique automobile that helps him pass the time. He enjoys neither autonomy nor sovereignty. Perhaps his life is simply a metaphor for the entwinement of humans with their machines. So why not fall in love with a robotic companion and simply complete the circle?

But—on the third hand?—consider Corry's predicament once more. He's been imprisoned in solitary confinement on an asteroid millions of miles from home. He fears

becoming an object himself, an inanimate thing sitting in the sand. He's part of a culture that is both willing to objectify him as well as build and box up robotic companions for mass consumption. Why is there a factory building Alicias? What is her purpose? Are there other models of such sociable robots? What consumer need does Alicia fill? There's much we are not told about Alicia, including especially what has led a society to manufacture and sell these sociable robots. And we shouldn't forget the cultural and institutional context in which Corry's loneliness was produced. Alicia is the product of a culture that has chosen to maroon its subjects on a lonely asteroid in a cruel sci-fi vision of solitary confinement and then devise a technical fix for that loneliness by supplying them with robotic companions.

Let's not forget as well that Alicia is female, as are many of our own relational artifacts. Alexa, Siri, Microsoft's Cortana—why is it that our relational artifacts and digital assistants are so often presumed to be female? Alicia arrives in a box, designed to fulfill Corry's needs—her first act is to serve him a glass of water. And when her services are no longer needed, she's (it's?) summarily shot in the head in a particularly violent act and left behind like all of Corry's other things. In the debate over whether Alicia is a mere thing or a human being, we can easily lose sight of the fact that Alicia is also a she, something she shares with Anne's electric grandma.

I Sing the Electric Body

Loneliness and the lack of human connection is also a theme explored in "I Sing the Body Electric." Following her mother's death, Anne is, as her Aunt Nedra describes her, "more sickly and hostile every day." The kids are not thriving in the care of baby-sitters and nurses. They are,

Nedra says, “like little flotsam and jetsam,” having no base or anchor. Fearing that Nedra means to take them away, Tom shares his latest issue of *Modern Science* with his father and they all pay a visit to the showroom of Facsimile Limited. While we learn nothing about Alicia’s origins in “The Lonely,” in “Electric” we watch as Tom and Karen pick out the various parts and pieces that are going to make up their electric grandma. As the salesman explains, “These are just the bits and pieces. Just the eyes, the lips, the limbs from which you will choose the elements which will become your, uh...grandmother.” Tom is drawn to eyes that look like the brown aggies he plays marbles with and Karen wants a grandma with long hair.

Sometime later, a matronly looking woman shows up at the house and begins to entertain Tom and Karen. Grandma delights them by flying a kite and playing marbles. But Anne will have nothing to do with this robotic simulacrum taking the place of her dead mother. Like Corry, she initially rejects and spurns Grandma and calls her old junk. In one outburst, she exclaims,

I never wanted you here. It was them—father and Tom and Karen. They wanted you, but I didn't. They needed you, but I never needed you. You sit and you talk to her, and you eat the food she makes, and you make believe, father. That's what you do. You make believe as if it were a game. As if she were real. But she's not real. She's a machine. Nothing but an old machine!

Anne is angry that her mother has died and accuses her of having lied to her and left her. In her anger, she runs out into a road and oncoming traffic. Grandma saves her by pushing her out of the way from a van but ends up being struck herself. Just as the kids fear that Grandma has

died, she comes back to life and Anne is overcome with emotion, recognizing that Grandma won't die and won't leave her. It's at this moment, as Rod Serling informs us in a rare mid-episode voiceover, that

...the wonderful electric grandmother moved into the lives of children and father. She became integral and important. She became the essence. As of this moment, they would never see lightning, never hear poetry read, never listen to foreign tongues without thinking of her. Everything they would ever see, hear, taste, feel would remind them of her. She was all life, and all life was wondrous, quick, electrical-like grandma.

At the episode's close, the kids are grown and heading off to college and Grandma is returning to Facsimile Limited where she'll talk to all the other mechanical grandmothers and share what she's learned and maybe be sent out to help raise another family or taken apart and redistributed.

Fable? Nightmare?

Where "The Lonely" ended on the note of a nightmare with a violent death, "Electric" ends on a happier note. As Serling observes in the episode's closing voiceover:

“A fable? Most assuredly. But who's to say at some distant moment, there might be an assembly line producing a gentle product in the form of a grandmother, whose stock in trade is love. Fable? Sure. But who's to say?”

Has *The Twilight Zone* had second thoughts about the mistreatment of poor Alicia, shot in the face and abandoned on a dusty asteroid along with the rest of Mr. Corry's things? Grandma gets a happier send off from her charges and looks forward to hanging out with other robotic grandmas, shooting the breeze until she's called back into service. Should we embrace this warmhearted episode about an electric, data-processing care giver? Perhaps not. As in “The Lonely,” maybe there are some darker implications to be explored.

While Alicia comes in a box with an owner's manual and Grandma comes strolling down a leafy, suburban street flying a kite and playing marbles, they're both still products, purchased at a factory, designed to fulfill consumer needs. We've seen that there are a lot of unanswered questions about just what consumer need Alicia fills. Grandma, we're told in Facsimile Limited's advertisement, is for parents who worry "about inadequate nurses and schools, who are concerned with the moral and social development of their children." But why are our parents so concerned about the development of their children? And if they are concerned, why are they turning to an assembly-line product in order to address those concerns?

“The Lonely” and “Electric” clearly tell different tales about our robot companions. Corry is alone and imprisoned on an arid asteroid while Anne and her siblings live in suburbia with a loving dad. But both Corry and Anne are imprisoned in a way in their loneliness and both

are bereft of human connection. They're both, as Aunt Nedra notes, like flotsam and jetsam, without an anchor. And it's into this lonely drifting that Alicia and Grandma come, filling a distinctively human need for companionship and care. We can appreciate how, in their loneliness, Corry and Anne welcome the attention of their robotic companions. But we also have to wonder if we want to live in a world where loneliness and companionship are fulfilled by a product you can buy off of an assembly line.

George recognizes that he can provide love for his children. But then he wonders, "But guidance. How do you buy guidance for your children? Someone here all the time. Someone around who cares." But why is George unable to provide guidance and care? He admits he's too busy. Maybe he works too hard and too many hours. But rather than provide guidance and care to his children, he chooses instead to buy them things. A new car. And a new grandma. But what becomes of a society where you can purchase a product designed to love and care? And what are we to make of the fact that Facsimile Limited provides only grandmas? What about grandpa? For all their differences, "The Lonely" and "Electric" are willing to imagine a world in which human companionship and care is hired out as service work to robotic women.

"The Lonely" and "I Sing the Body Electric" leave us with some tough questions about care, loneliness, and learning to love machines that care. As our days and lives are increasingly attended to by our digital assistants and robotic companions, we might wonder, along with Anne, whether this sounds so good. Fable or nightmare? You be the judge, in the twilight zone.