## **BUSINESS**

## The technology of the future paints a very lonely picture for all of us



By <u>Samantha Murphy Kelly</u>, <u>CNN Business</u> Updated 7:56 AM ET, Sat January 11, 2020

**New York (CNN Business)**While standing next to Samsung's new softballshaped robot Ballie at the CES tech show this week, a company spokesperson told me the personal assistant prototype may one day be able to roll over to me and call 911 if I've fallen down.

My dark-yet-immediate reaction was to wonder whether the newly-announced "artificial humans" from startup Neon a few booths over would be able to do the same. If no one else was around, could I lean on a somewhat realistic-looking avatar -- one I'd built a relationship, even a friendship, with -- to know when I'm in need of medical assistance?

It was a bleak realization that so much of the tech I'd seen at the annual electronics expo painted a dystopian picture of life alone. There was the cute robotic cat that responds to your commands and an even cuter toilet paper robot that delivers you a fresh roll when no one else is around to help. Meanwhile, the Lovot robot exists to give people hugs.

Technology has cultivated a reputation of isolation over the years: There's the image of the solitary coder working late in the office, the gamer who's forgotten to get off the couch for 12 straight hours and, more relatably, the

millions of people who spend far too much time checking their smartphones rather than being present with those around them.

Some technology has given us a false sense of connection: Social media has encouraged us to hoard friends we'll never really engage with and covet interactions that are largely meaningless in the form of likes.



"Artificial humans" from the startup Neon aim to teach skills, offer medical advice and even become your friend

For many, isolation is a real issue. According to a 2018 survey by Cigna of 20,000 people ages 18 and older in the US, nearly half said they generally feel alone (46%) and roughly the same percentage said they do not have meaningful in-person social interactions with a friend or family member each day.

This reality is why companion technology has taken off as a standalone category, especially among the elderly. The AARP reports social isolation impacts more than 8 million older adults and is associated with medical issues, including depression, earlier onset of dementia and higher blood pressure.

Companion technology ranges from caregiver robots and pets, including these headless cats for people who have allergies or can't fully care for one, to virtual reality getaways. For example, some senior living communities offer residents European vacations by way of VR headsets, allowing them to visit cities abroad without even standing up. Sometimes friends and family will meet up with them in the virtual world. Alexandra Hamlet, a clinical psychologist at the Child Mind Institute in New York City who specializes in mood and anxiety disorders, tells me that, from a wellness and psychology perspective, nothing beats what human interaction and connection can provide.

"This has been proven biologically from a human perspective over and over," Hamlet said. "Back when there were cavemen, they looked out for each other to survive. That hasn't changed." She added: "It really only takes one connection to create that feeling of mental health and sanity."

Even as technology advances, a major psychological roadblock remains in forging real relationships with robots and digital avatars. For example, there's the phenomenon called the Uncanny Valley, where people are weirded out by things that resemble humans but aren't human (see: mascots, clowns, mannequins).

"While technology is getting better and looking more human and pet-like, we won't ultimately connect to those things because of the Uncanny Valley," Hamlet said. "We know something is a little bit off, so that true connection can't be made. Until robots become indistinguishable from humans in every manner, including speech, mannerisms and affect, there still won't be a better result than having a human one-on-one connection."

That limitation leaves some of us with two options: setting aside technology more to reinvest in real world options or doubling down on increasingly life-life cutting-edge tech to fill the void. Based on this year's CES, many companies are betting we choose the latter.

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