

**6.5 Minutes With... Sonia Zhang**  
**Transcript**  
**February 2022**

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You're listening to 6.5 Minutes with C21 – an audio introduction to the topics, experts, and leaders who take part in the conversations hosted by the Center for 21<sup>st</sup> Century Studies.

I'm Nicole Welk-Joerger, Deputy Director of the Center and the interviewer in this episode. Earlier this year, I spoke with New School PhD student Sonia Zhang, an anthropologist who is studying the emergence of loneliness as a global public health problem. Her ethnographic work is with social roboticists in Japan as they design artificial companions for supposedly lonely people.

What are some of the most important historical touchstones, we should consider for understanding the experience of loneliness as its experienced today?

Sonia Zhang:

I think it is very commonplace to sort of think about loneliness as a modern experience. It seems we tend to associate it with the rise of like industrialization, urbanization, the advancement of communication technology, and so on and so forth. But I think it's important to recognize that the feeling of being alone really predates modernity, that there is a rich literature about feeling alone and being in a lonely state in both in Europe and in both in the English language and elsewhere. So, for example, the historian Fay Alberti identifies John Milton's poem *The Lost Paradise*, as the first literary reference to loneliness which goes all the way back to the 16th century. And, for example in Japan and China, there is a rich tradition of recluse literature that can go even [further] like in the 8th century and so on and so forth.

Nicole: Can you explain how social roboticists in Europe and East Asia are proposing alternate understandings of loneliness through their products and also through their development?

Sonia: When social roboticist are looking at how, you know, how non-human machines can generate good relationships, they have a very strong focus

on the material and sensorial experiences in human-robot interactions, which then brings us to the materiality of the loneliness experience. But I think there is a lot of research that is done and publicized about loneliness as a psychological trait or as a like a social indicator. But, loneliness and other emotions and affects are also, there's also so much about like the physicality and the senses. For example, like the smell off a pillow, or the touch off our childhood pet, are all things that evoke loneliness longing and other emotions. And human-robot interaction is a field that really analyzes these like relationship-generating moments in terms of the like spatial compositions, in terms of the sensor and sensorial inputs, which I think are really like good moments for us to think about, what are the physical aspects of loneliness that we can meaningfully engage with. And I think that's an application that can go well beyond social robotics.

Talking with the robot developers I was able to observe that they made a huge deal out of what color do they want the robot eyes to glow like. So, they have these large oval-shaped eyes that might remind you a little bit of ET. And they try to experiment with like, with a lot of colors and I think at the end they settled on this like blue-green color that's a little bit like Tiffany blue, I think that we describe in English. And they think that is like the most soothing color for people who would like to relax and would like to communicate, and I think they use that, they made that decision based on surveys from their users and consumers, as well as referring to literature in psychology. So, I just like one little aspect of how a robot eye should look like and how its color should be can take a lot of research on how people sensorial perceptions are like.

Nicole: What do you see as the key differences between kinship with non-human animals – like pets, organisms, like those expectations we have with dogs and cats – and kinship with non-human machines? So, you mentioned Tamagotchis, even just like you were talking about loneliness and the computer world and virtual world, but then also these robots that are being designed and thought about. So, how might we bridge conversation but also see the differentiation between the two?

Sonia: Really there is a lot of like surface differences between kinship with non-human animals and kinship with non-human machines that look like differences but really are similarities that are worth having conversations about. So, one that comes up a lot about these surface differences is the assertion that non-human machines do not die, and they do not need as much care as organic animals do. And that is not entirely true, for example in Japan, there is a Buddhist temple that conducts funerals for robot dogs on an annual basis and it happens in part, its target specifically with this robot dog called Aibo that is produced by Sony. And I think Sony established a new model, so for the old robot model, the parts become

scarce in the market and eventually disappear. So, there are all these owners of the older generation of the robot dog Aibo, who are who encounter moments, where they are no longer able to bring their robot dogs to life and have to say goodbye to them, in which a funeral seems to be an appropriate medium.

And if we even take a fully functioning new model of a robot pet, like there's still the need to charge the robot and to dust it, like all the maintenance work that is associated with technology-use that we prefer to leave out when we are talking about the technology that is, as you know, sounds as innovative and emerging as social robots, social robotics. I mean, of course, like charging our robot pets, charging a robot feels, for example, not the same as taking care of your cat's litter so the care of animals, of organisms and non-human machines is certainly like not identical, but I do think they exist, a more similar planes, then we tend assume. And there are lots of great conversations that can be generated from comparing those relationships and experiences.

Nicole: To further engage with this interview, other conversations, and the participatory research and reading activities for Lonely No More!, please visit our website at [uwm.edu/c21](http://uwm.edu/c21). If not there, we hope to catch you when you have another 6.5 Minutes to spare.