

Humans may be losers if technological nature replaces the real thing

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There are Web cams focused on falcons, ferrets and fish, virtual tours of the Grand Canyon and Yosemite, and robotic dogs, seals and even dinosaurs. But what about the real deal: observing animals in their natural habitat, hiking the John Muir Trail or a playing with a live pet?

Modern technology increasingly is encroaching into human connections with the natural world and University of Washington psychologists believe this intrusion may emerge as one of the central psychological problems of our times.

"We are a technological species, but we also need a deep connection with nature in our lives," said Peter Kahn, a UW developmental psychologist and lead author of a new study exploring how humans connect with nature and technological nature.

Writing in the current issue of the journal *Current Directions in Psychological Science*, Kahn and two of his UW graduate students, Rachel Severson and Jolina Ruckert, look at the psychological effects of interacting with various forms of technological nature and explore humanity's growing estrangement from nature.

The UW researchers cite earlier experiments conducted by Kahn's laboratory, one with a plasma display "window" and several with AIBO, a robotic dog.

The plasma window study showed that people recovered better from low-

level stress by looking at an actual view of nature rather than seeing the same real-time high-definition television scene displayed on a plasma window.

"What do we compare technology to? If we compare it to no nature, technological nature works pretty well. But if we compare it to actual nature, it doesn't seem to provide as many psychological benefits," Kahn said.

The AIBO studies showed that children were in some ways were treating the robots as other beings But compared to interacting with a real dog, their interactions with AIBO were not as social or deep.

"Robot and virtual pets are beginning to replace children's interactions with biologically live pets," said Ruckert. "The larger concern is that technological nature will shift the baseline of what people perceive as the full human experience of nature, and that it will contribute to what we call environmental generational amnesia."

This concept of amnesia proposes that people believe the natural environment they encounter during childhood is the norm, against which they measure environmental degradation later in their life. The problem with this is that each generation takes that degraded condition as a non-degraded baseline and is generally oblivious of changes and damages inflicted by previous generations.

"Poor air quality is a good example of physical degradation," said Kahn. "We can choke on the air, and some people suffer asthma, but we tend to think that's a pretty normal part of the human condition.

"Some people get the idea on one level if they are interested in environmental issues," said Severson. "They see the degradation, but they don't recognize their own experience is diminished. How many

people today feel a loss such as the damming of the Columbia River compared to a wild Columbia River? A lot of us have no concept of it as a wild river and don't feel a loss."

Kahn likened the situation to the effort to convince people that climate change is a serious challenge. But unlike climate change, the threat posed by technological nature, isn't right in our faces.

"People might think that if technological nature is partly good that that's good enough," he said. "But it's not. Because across generations what will happen is that the good enough will become the good. If we don't change course, it will impoverish us as a species.

Source: University of Washington ([news](#) : [web](#))

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