Robot pets to rise in an overpopulated world

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University of Melbourne animal welfare researcher Dr Jean-Loup Rault says the prospect of robopets and virtual pets is not as far-fetched as we may think.

His paper in the latest edition of *Frontiers in Veterinary Science* argues pets will soon become a luxury in an overpopulated world and the future may lie in chips and circuits that mimic the real thing.

"It might sound surreal for us to have robotic or virtual pets, but it could be totally normal for the next generation," Dr Rault said.

"It's not a question of centuries from now. If 10 billion human beings live on the planet in 2050 as predicted, it's likely to occur sooner than we think. If you'd described Facebook to someone 20 years ago, they'd think you were crazy. But we are already seeing people form strong emotional bonds with robot dogs in Japan.

"Pet robotics has come a long way from the Tamagotchi craze of the mid-90s. In Japan, people are becoming so attached to their robot dogs that they hold funerals for them when the circuits die."

Dr Rault embarked on research for the paper after discovering a huge lack of information about how technology may influence our relationships with animals in the future.

"You won't find a lot of research on pet robotics out there, but if you Google robot dogs, there are countless patents. Everyone wants to get

ahead of this thing because there is a market and it will take off in the next 10 to 15 years."

But the emergence of robotic pets is a double-edged sword, he warns. They can benefit people who are allergic to pets, short on space, in hospital, or scared of real animals, but the ethics of depending on a robot for companionship begs many big ethical questions.

"Robots can, without a doubt, trigger human emotions," Dr Rault added. "If artificial pets can produce the same benefits we get from live pets, does that mean that our emotional bond with animals is really just an image that we project on to our pets?"

As an animal welfare researcher, Dr Rault is particularly interested in whether a surge in popularity of disposable fake pets could lead to a shift in how humanity treats animals.

"Of course we care about live animals, but if we become used to a robotic companion that doesn't need food, water or exercise, perhaps it will change how humans care about other living beings."

Dr Rault says it's not too far-fetched to imagine that robot pets of the future could feature bonafide Artificial Intelligence and could learn to think and respond on their own.

"When engineers work on robotic dogs, they work on social intelligence, they address what people need from their dogs: companionship, love, obedience, dependence," he said.

"They want to know everything about animal behaviour so they can replicate it as close as possible to a real pet."

And what about robotic cats? "Well, that's a little harder because you

have to make them unpredictable," he concluded.

More information: *Frontiers in Veterinary Science* ,
journal.frontiersin.org/articl … vets.2015.00011/full

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