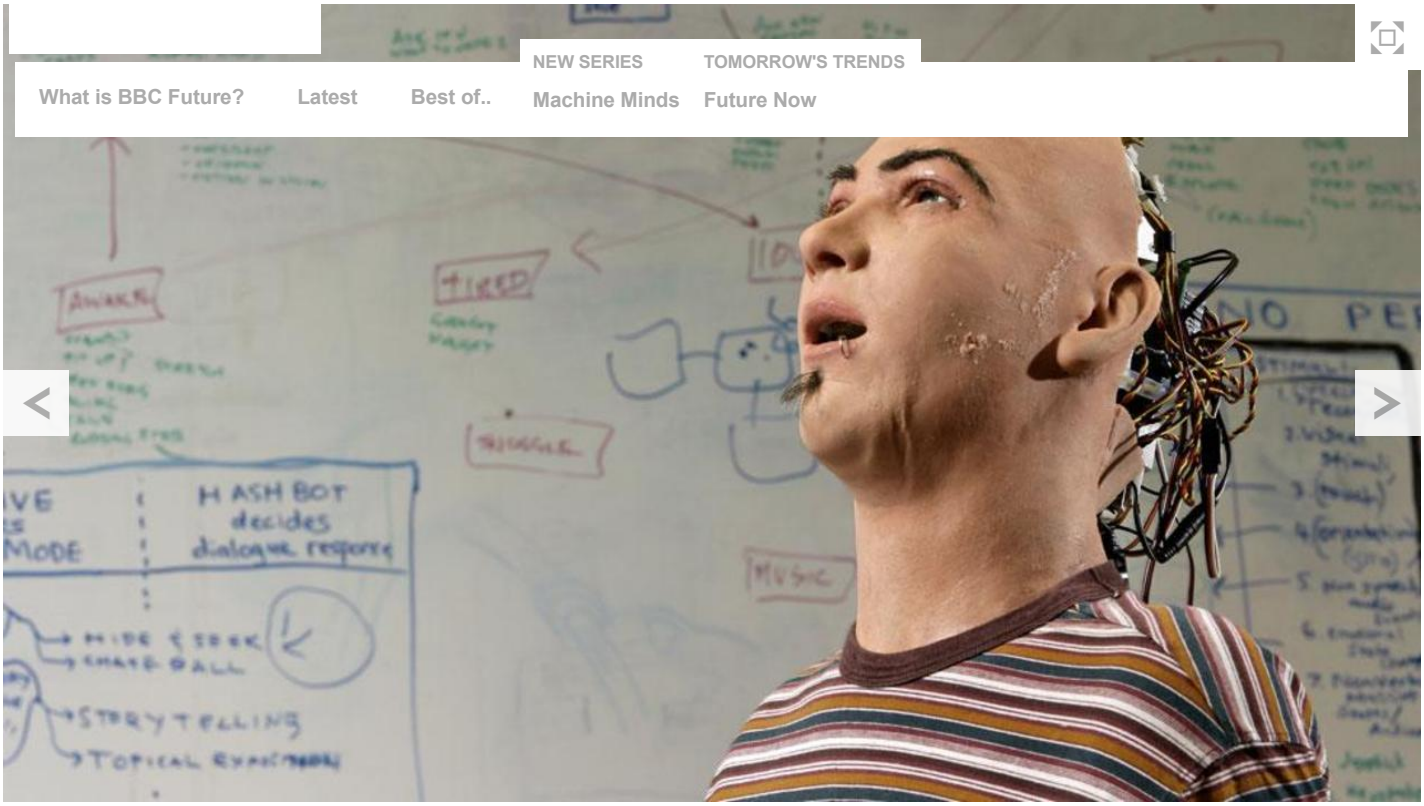



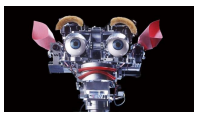
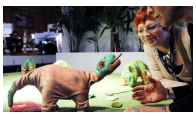

Would you harm this bot?

People often feel uncomfortable when watching social robots being tortured or harmed (see main story). Ask yourself how you'd feel if the same was done to these bots. (Thinkstock)

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Is it OK to torture or murder a robot?

We form such strong emotional bonds with machines that people can't be cruel to them even though they know they are not alive. So should robots have rights?

By Richard Fisher
27 November 2013

Kate Darling likes to ask you to do terrible things to cute robots. At a workshop she organised this year, Darling asked people to play with a Pleo robot, a child's toy dinosaur. The soft green Pleo has trusting eyes and affectionate movements. When you take one out of the box, it acts like a helpless newborn puppy – it can't walk and you have to teach it about the world.

Yet after an hour allowing people to tickle and cuddle these loveable dinosaurs, Darling turned executioner. She gave the participants knives, hatchets and other weapons, and ordered them to torture and dismember their toys. What happened next "was much more dramatic than we ever anticipated," she says.

For Darling, a researcher at Massachusetts Institute of Technology, our reaction to robot cruelty is important because a new wave of machines is forcing us to reconsider our relationship with them. When Darling described her Pleo experiment in **a talk in Boston this month**, she made the case that mistreating certain kinds of robots could soon become unacceptable in the eyes of society. She even believes that we may need a set of "robot rights". If so, in what circumstance would it be OK to torture or murder a robot? And what would it take to make you think twice before being cruel to a machine?

Until recently, the idea of robot rights had been left to the realms of science fiction. Perhaps that's because the real machines surrounding us have been relatively unsophisticated. Nobody feels bad about chucking away a toaster or a remote-control toy car. Yet the arrival of social robots changes that. They display autonomous behaviour, show intent and embody familiar forms like pets or humanoids, says Darling. In other words, they act as if they are alive. It triggers our emotions, and often we can't help it.

For example, in a small experiment conducted for the radio show Radiolab in 2011, Freedom Baird of MIT asked children to hold upside down **a Barbie doll, a hamster and a Furby robot** for as long as they felt comfortable. While the children held the doll upside down until their arms got tired, they soon stopped torturing the wriggling hamster, and after a little while, the Furby too. They were old enough to know the Furby was a toy, but couldn't stand the way it was programmed to cry and say "Me scared".

It's not just kids that form surprising bonds with these bundles of wires and circuits. Some people give names to their Roomba vacuum cleaners, says Darling. And soldiers honour their robots with "medals" or hold funerals for them. She cites one particularly striking example of a **military robot that was designed to defuse landmines by stepping on them**. In a test, the explosions ripped off most of the robot's legs, and yet the crippled machine continued to limp along. Watching the robot struggle, the colonel in charge called off the test because it was "inhumane", according to the Washington Post.

Killer instinct

Some researchers are converging on the idea that if a robot looks like it is alive, with its own mind, the tiniest of simulated cues forces us to feel empathy with machines, even though we know they are artificial.

Earlier this year, researchers from the University of Duisburg-Essen in Germany used an fMRI scanner and devices that measure skin conductance to track people's reactions to a video of somebody **torturing a Pleo dinosaur** – choking it, putting it inside a plastic bag or striking it. The physiological and emotional responses they measured were much stronger than expected, despite being aware they were watching a robot.

Darling discovered the same when she asked people to torture the Pleo dinosaur **at the Lift conference in Geneva in February**. The workshop took a more uncomfortable turn than expected.

After an hour of play, the people refused to hurt their Pleo with the weapons they had been given. So then Darling started playing mind games, telling them they could save their own dinosaur by killing somebody else's. Even then, they wouldn't do it.

Finally, she told the group that unless one person stepped forward and killed just one Pleo, all the robots would be slaughtered. After much hand-wringing, one reluctant man stepped forward with his hatchet, and delivered a blow to a toy.

After this brutal act, the room fell silent for a few seconds, Darling recalls. The strength of people's emotional reaction seemed to have surprised them.

Given the possibility of such strong emotional reactions, a few years ago **roboticists in Europe argued that we need new set of ethical rules for building robots**. The idea was to adapt author Isaac Asimov's famous "**laws of robotics**" for the modern age. One of their five rules was that robots "should not be designed in a deceptive way... their machine nature must be transparent". In other words, there needs to be a way to break the illusion of emotion and intent, and see a robot for what it is: wires, actuators and software.

Darling, however, believes that we could go further than a few ethical guidelines. We may need to protect "robot rights" in our legal systems, she says.

If this sounds sound absurd, Darling points out that there are precedents from animal cruelty laws. Why exactly do we have legal protection for animals? Is it simply because they can suffer? If that's true, then Darling questions why we have strong laws to protect some animals, but not others. Many people are happy to eat animals kept in awful conditions on industrial farms or to crush an insect under their foot, yet would be aghast at mistreatment of their next-door neighbour's cat, or seeing a whale harvested for meat.

The reason, says Darling, could be that we create laws when we recognise their suffering as similar to our own. Perhaps the main reason we created many of these laws is because we don't like to see the act of cruelty. It's less about the animal's experience and more about our own emotional pain. So, even though robots are machines, Darling argues that there may be a point beyond which the *performance* of cruelty – rather than its consequences – is too uncomfortable to tolerate.

Feel your pain

Indeed, harm to a victim is not always the only reason we decide to regulate a technology. Consider an altogether different kind of gadget: a few weeks ago the British Medical Association argued that **smoking e-cigarettes should be banned in public indoor spaces** in the UK. It doesn't matter that the smoker or those nearby face no health risks, the BMA argued. It normalises real smoking in public places once again.

To take another example: if a father is torturing a robot in front of his 4-year-old son, would that be acceptable? The child can't be expected to have the sophisticated understanding of adults. Torturing a robot teaches them that acts that cause suffering – simulated or not – are OK in some circumstances.

Or to take it to an extreme: imagine if somebody were to take one of the **childlike robots** already being built in labs, and sell it to a paedophile who planned to live out their darkest desires. Should a society allow this to happen?

Such questions about apparently victimless evil are already playing out in the virtual world. Earlier this year, the **New Yorker described the moral quandaries** raised when an online forum discussing Grand Theft Auto asked players if rape was acceptable inside the game. One replied: “I want to have the opportunity to kidnap a woman, hostage her, put her in my basement and rape her everyday, listen to her crying, watching her tears.” If such unpleasant desires could be actually lived with a physical robotic being that simulates a victim, it may make it more difficult to tolerate.

Somewhere down the line there’s also the possibility of a nasty twist: that machines really could experience suffering – just not like our own. Already some researchers have begun making **robots “feel” pain to navigate the world**. Some are concerned that when machines eventually acquire a basic sense of their own existence, the consequences will not be pleasant. For this reason, the philosopher Thomas Metzinger argues that we should stop trying to create intelligent robots at all. The first conscious machines, says Metzinger, will be like confused, disabled infants – certainly not the sophisticated, malign AI of science fiction – and so treating them like typical machines would be cruel. If robots have a basic consciousness, then it doesn’t matter if it is simulated, he says. It believes it is alive, it can experience suffering. Metzinger puts it like this: “We should refrain from doing anything to increase the overall amount of suffering in the universe.”

What’s clear is that there is a spectrum of “aliveness” in robots, from basic simulations of cute animal behaviour, to future robots that acquire a sense of suffering. But as Darling’s Pleo dinosaur experiment suggested, it doesn’t take much to trigger an emotional response in us. The question is whether we can – or should – define the line beyond which cruelty to these machines is unacceptable. Where does the line lie for you? If a robot cries out in pain, or begs for mercy? If it believes it is hurting? If it bleeds?

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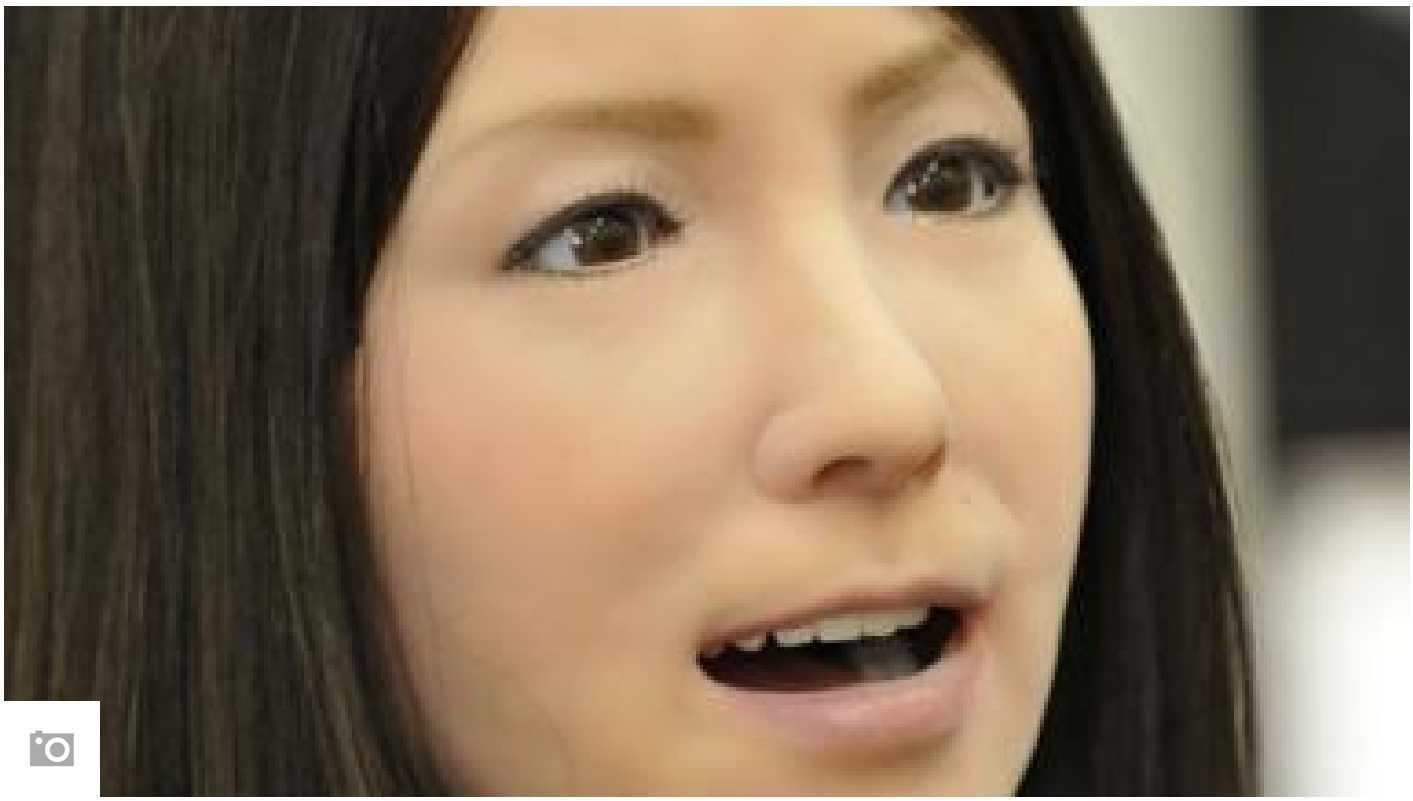

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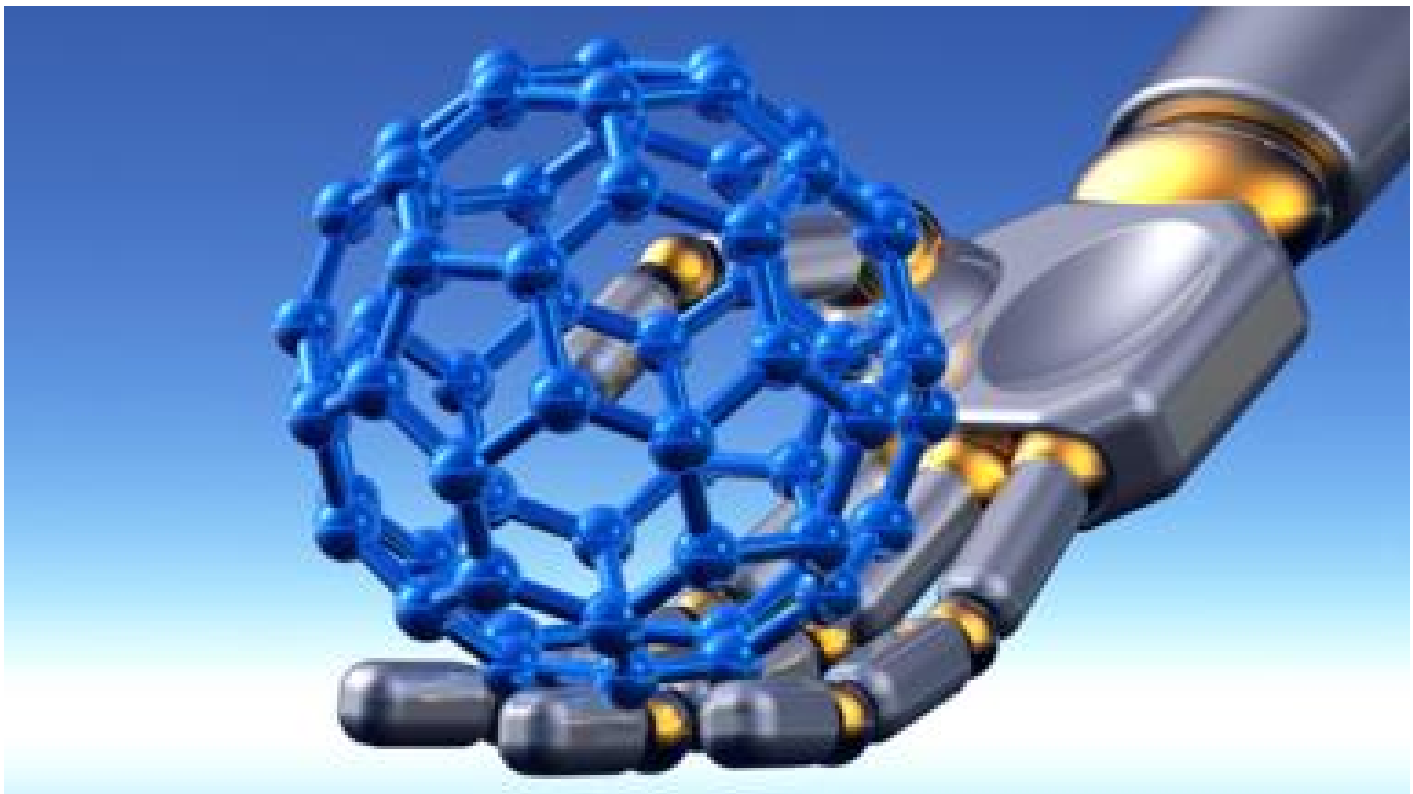

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