Pursuing the creation of artificial intelligence

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?Success in creating AI would be the biggest event in human history. Unfortunately, it might also be the last, unless we learn how to avoid the risks.
Stephen Hawking

I?love science fiction. And I?love the idea that we may one day have robots among us, performing various tasks in our society. But ultimately, it's a sort of catch-22 in our evolution.
I find it odd that our scientists are spending a lot of time a

nd effort trying to create artifical intelligence (AI), especially wen we know so little about our own intelligence, or lack thereof.
We inventors or science fiction writers first sat down and conceived robots, they made them in our image. For some reason, we want robots to look and act like people. What's wrong with just fine-tuning people and leave the androids for another time?
We've been taking baby steps in the AI field since the first supercomputers came into the picture only a few decades ago. Some people may already have some form of AI in their homes today ??a robot vacuum cleaner, voice activated amenities, etc.
A robot developed by Computer Science Ph.D. candidate Justin Hart GRD '13 at the Social Robotics Lab may pass a landmark test by recognizing itself changing in a mirror.
Self-awareness, the ability to recognize oneself as distinct from one's surroundings, is a mark of higher-level cognitive skills. This test was first developed to test the presence of self-awareness in animals, and requires the subject to recognize a change in its appearance by looking at its reflection.
In the mirror test, developed by Gordon Gallup in 1970, a mirror is placed in an animal's enclosure, allowing the animal to acclimatize to it. At first, the animal will behave socially with the mirror, assuming its reflection to be another animal, but eventually most animals recognize the image to be their own reflections. After this, researchers remove the mirror, sedate the animal and place an ink dot on its frontal region, and then replace the mirror. If the animal inspects the ink dot on itself, it is said to have self-awareness, because it recognized the change in its physical appearance.
Only chimpanzees, bottlenose dolphins, magpies and elephants have passed the test.
Ambarish Goswami, a principal scientist at Honda Research Institute in California, said that a robot could never be self-aware in the same way an animal can be. Instead, the kind of limited self-awareness for which the researchers plan to test is ?purely an image-processing program.?
Putting this to the test, Hart has said he would run a program that would have Nico, a robot that looks like a jumble of wires with eyes and a smile, learn a three-dimensional model of its body and coloring. He would then change an aspect of the robot's physical appearance and have Nico, by looking at a reflective surface, identify where his body is different.
Hart's research postulates that robots can demonstrate some of the characteristics that qualify as self-awareness ? in this case, recognizing the spatial relationship between mirrors and real life.
If Nico passes the self-awareness test, the technology could have important implications for the field of robotics, including a robot's ability to self-calibrate.

A self-aware robot could also repair itself if damaged, or at least compensate for damage sustained.
The field of artificial intelligence is a fairly new one, but the robotics community would still benefit from the technology required to create self-aware robots.
With a self-aware robot, keeping robot models updated will be significantly easier.
It's sort of like your home computer updating itself regularly, adding more memory, debugging itself and running better as time went on. There would be no need to ever get a new computer.
Hart has used Nico for purposes beyond self-awareness. In 2010, Hart ran a study in which Nico played rock-paper-scissors with participants, occasionally cheating. When Nico cheated, participants grew angry and blamed Nico.
But fear not. A self-aware robot, Hart said, is not a thinking or feeling robot ? instead, it is a robot programmed to know itself.
Hart said he plans to conduct the test within the next few months.
Any science fiction fan knows all too well the pitfalls with androids and AI. Currently, the TV?show Humans is a really interesting look into the not too distant future. While used as household servants, a few of these ?synthetics??have become self-aware and act ?human.?
Human beings have created ?things??to make our lives easier and future robots would be no exception. They would be our servants, doing everything from dangerous tasks to making breakfast. It's all very weird at this point.
I believe such research and pursuits are useful if and when they have a direct bearing on the human condition. If we can learn more about our own brains through AI, great. If we can program android surgeons to perform delicate operations, even better. If we can cure disease with ?smart bots? I'm game.
But to have a bunch of synthetics among us, driving us to work and doing our grocery shopping, doesn't really further humankind's evolution.