Homework 1.4

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1. It doesn’t seem like it is possible to play a full on game of ping pong with a human yet. But AI/robots can hit ping pong balls back. According to this article ( <http://spectrum.ieee.org/automaton/robotics/artificial-intelligence/ping-pong-robot-learns-by-doing> ) The robot can learn from the human and track the ball, and then hit the ball. But they are a ways out from being able to hit the ball back to the table, and hit it anywhere a human hits it to the robot.
2. Driving in an unmapped location looks to be semi-possible. Google claims that its autonomous cars can drive anywhere safely. But there seems to be some debate over this. Some say the car would need to have detailed maps, otherwise it may not recognize stop signs and stop lights. But Google claims that whether or not it recognizes them it will still be safe because of the on board sensors and their ability to avoid humans.

src: <http://www.computerworld.com/article/2599426/emerging-technology/did-you-know-googles-self-driving-cars-cant-handle-99-of-roads-in-the-us.html>

1. Yes the DARPA Urban challenge was all about fully autonomous vehicles navigating an urban course. For example the Volkswagen ‘junior’ car took second place.  
   source: <http://www.theautochannel.com/news/2007/11/05/069618.html>
2. I couldn’t find any sources for buying a weeks worth of groceries, but it seems like buying groceries at the market would be really difficult for an agent to do. And probably is not available yet.
3. I couldn’t find any sources for buying a weeks worth of groceries. But it seems like It would be possible for an agent to order the groceries online. It would just need to be able to record what the person uses in the weeks before and inventory it all. It could also be made to recognize expiration dates etc.
4. According to this slideshow it appears that playing a game of bridge is complicated but possible  
   http://www.slideshare.net/lordmwesh/game-playing-in-artificial-intelligence
5. Yes it looks like this is possible. At least in one instance.  
   <http://www.wired.com/2009/04/newtonai/>
6. In order for a computer to write an intentionally funny story it would need to understand emotion. AI is not there yet. Someday it could be though
7. It seems that legal advice is too complex and too subjective for an agent to decode and understand and offer advice on.
8. Yes this is possible. I have used the bing translate and google translate apps for this in the past
9. Yes this is possible and an upcoming technology. The linked article talks about cancer biopsys but im sure this will become a huge industry.  
   http://www.voanews.com/content/when-your-surgeon-is-a-robot-100345534/171218.html