HEY! The personified robot has feelings.
Mudit Aggarwal, AIS MV, XII A
Page Editor

Contest Edition

The big AI question

Road To Evolution Or Shortcut To Extinction? It's Time For You To Decide!

Rhea Suri, AIS MV, XI D

Ever since our tryst with the industrial revolution, we have been constantly evolving, technologically. Nevertheless, everything in excess is a threat in some way or the other. At the point in history where we stand today, we have reached the pinnacle of AI. The debate raging right now is whether the rapid development of algorithms and AI (which somehow makes it near-sentient) spell doom for the human race. The traditional laws which govern the spectrum of robotics, have changed drastically. How? Let's find out.

Thou shall not harm a human

The first among the three laws of robotics given by Asimov states that 'A robot may not injure a human.' This seems to be in direct conflict with the opinions of Sophia, the world famous humanoid. In a one-of-a-kind interview, she was recorded saying that she would hack into the defenses of all nuclearized countries and release the warheads. She was quick enough to add that she would replace the warheads with flowers. Was her algorithm really designed for her to say this? Or has the AI advanced so much that she was saying this sarcastically? Either way, the thought is unsettling.

Thou shall obey all orders

As per this law, a robot is supposed to obey all orders given to it by human beings. However, we have pushed the boundaries and given robots the ability to say 'No'. Dempster, a robot, when placed at the edge and asked to take a step forward, refused to do so for the fear of being destroyed after falling off the cliff. Do we really need a machine superior to humans, which may have the ability to oppose its own creators? It's time to ponder over this for a while.

Thou must protect thy existence

'A robot must protect its own existence as long as such protection does not conflict with the First or Second Law,' says the third law. In this context, let's talk about 'Fendor' a highly advanced robot who has the ability to drive a car, use a hammer, and fire a gun (of course it does). Basically anything that needs to be done to keep one out of jeopardy, or to survive in a crisis situation. In a world which is already plagued with violence, is it really necessary to create an invincible robot who has the ability to operate firearms?

What we have in front of us is a dilemma, which asks us how much are we supposed to evolve, and who decides that end of the line? Do we really need that? We might find the means for our end before we can answer that question.

Dear readers, it's time for you to decide!

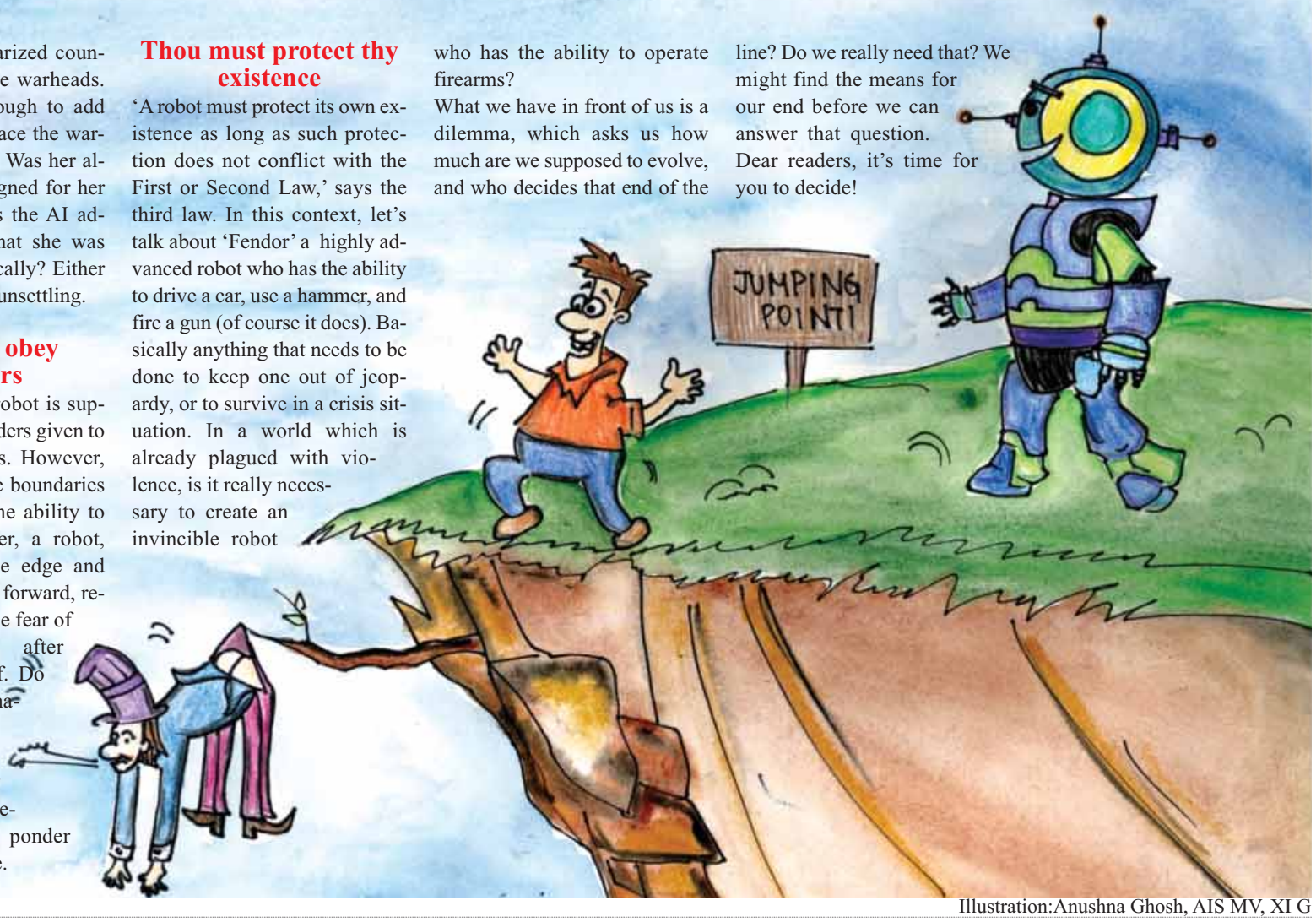

Illustration:Anushna Ghosh, AIS MV, XI G

Scrumptious science

My Edible Experiments With Science

Graphic: Aryaman Jain, AIS MV, XII G

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Science is not just about mere chemical equations that keeps whacking your brain most of the times. It is, in fact, a gift that keeps on opening its doors to something new every now and then. So, how about we change the equation so that it becomes digestible (all puns intended) for all of us?

Edible Earth

Ingredients: Rice krispies, marshmallows, raisins / M&Ms / Skittles / Cadbury Gems, Chocolate syrup, spice drop

What you learn: The proportion of our planet Earth's interiors.

Take the marshmallow and insert a piece of raisin in it. Mix rice krispies with chocolate sauce. Coat the marshmallow with this chocolaty goodness. Now, this is not just a lip smacking sweet. The raisin and marshmallow resemble the inner and outer core of the earth. The rice krispies layer the rocky, mineral-rich mantle and the chocolaty syrup represents the soil and the crust.

FACT SHEET
The velocity of light varies with the refractive index of the medium used. The longer the medium is, the less light is received directly at the end.

Fun Jell-O

Ingredients: Jell-O, laser light

What you learn: About refractive index.

So there is a new way of learning about light, and what better way to learn it as we eat it. Cut the Jell-O into various shapes. Take the laser and throw light at different angles into the Jell-O. You see that light bends and curves as you move your hand. No, you aren't wasting your time, because you are simultaneously learning about how light's velocity varies as the refractive index of the medium changes.The longer the Jell-O piece, the less amount of light is received directly at the end.

Popcorn Physics

Ingredients: Corn cob, paper bag and a microwave

What you learn: About the laws of gases.

Munching hot and fresh popcorn in the comfort of your couch is what we all enjoy. And that's what will push you to do this experiment. Put the cob in a brown bag, fold the top of the bag numerous times, and heat it in a microwave. Watch the corns pop just like your ACT II does. This happens because the water trapped inside pericarp of the kernel causes the pressure to go up until the pericarp ruptures and the insides, now melted, spew out. The whole process follows the ideal gas law which requires the pressure to go up as the temperature inside the kernel changes.

Candy DNA

Ingredients: Toothpicks, 4 different coloured marshmallows, licorice strands

What you learn: About the structure and purpose of DNA.

The four colours of the marshmallows represent four nucleotide chemicals - Guanine (G), Adenine (A), Cytosine (C) and Thymine (T), all of which are nitrogenous bases from amino acids. Using your toothpicks, arrange the marshmallows in pairs, ensuring that G is coupled with C, and A with T. Make 6 base pairs following the pattern and connect the base pairs by sticking them to licorice strands till it resembles a curved ladder. Bravo! You just assembled a DNA strand and that too using marshmallows!

Here's hoping that this whole range of experiments helped you be more friendly towards science, because otherwise, the only other option is to listen in class.