AI and Mental Obesity

Many things have been said about Artificial Intelligence (AI) lately. How computers / robots are becoming smarter, and that one day they will command humans, telling them how to run their lives.

At first I dismissed this as the material of B-grade SciFi movies. Then I began to compare it to another prevailing situation that is leading to our life-style degradation – Human Obesity.

Now I am not so confident that we can dismiss the AI threat so simply. Now is the right time to consider where AI and Machine Learning could lead us. Is this where we want to go?

What is AI?

Let's take a VERY simplistic summary of what the term AI refers to in our current technology world. Machines are programmed to improve their analysis of data to produce better outcomes/recommendations. At this point in time, we limit the machines' ability to act on those outcomes. We have a final, human check, before authorising the action.

The AI of today is designed with three fundamental components

1. Collect and Categorise large quantities of data
2. Analyse this data, based on human-specified criteria, and make recommendations
3. Accept Human input where decisions made (by Humans) differ from those recommendations made, and 'learn' from this input

Collect and Categorise large quantities of data

Machines are able to troll the internet and extremely large sources of data (Data Lakes). This can be billions and even trillions of points of data. Far exceeding any human capability to compile such vast amounts of data for analysis. This is one of the major advantages of the use of machines over humans.

This data must then be categorised in some manner in order to apply analytics and produce useful outcomes. The categorisation usually takes into account the type of analysis that users of the data may want to apply. This must currently be defined by humans and performed by machines.

Analyse this data, based on human-specified criteria, and make recommendations

Machines will perform analysis as requested, by humans. AI will perform analysis, based on historical data, to arrive at recommendations. The power of the machine is in being able to apply many algorithms to search for patterns of cause and effect.

The algorithms are human defines, but are becoming so complex that few humans have the full understanding of them. Some analysis produces unexpected results. This may be

because humans could not predict the outcomes due to the inability to comprehend the vast quantity of data, or it may be because of glitches in the algorithms. The result is the same – we should never just accept AI recommendations verbatim.

Accept Human input where decisions made (by Humans) differ from those recommendations made, and 'learn' from this input

Where the human decides on an alternate course of action, this needs to be fed back into the AI program. The program needs to be told why, what additional data should be sourced, and how the analysis needs to change, in order to recommend the preferred outcome next time. This is the AI learning function, again, specified by humans.

So, while AI is very powerful at producing recommendations from vast amounts of data, human input is still required at all points in the AI chain.

Until such time as we can teach machines

1. how to define categorisations,
2. which analytics would be useful, and
3. what to alter should the outcomes prove not to be suitable,

humans will remain essential to the application of AI.

Don't imagine for a moment that there are not people out there working on teaching machines to do just that. They are the humans that want to be ahead of the game and in control of the future.

So what is there to fear?

Consider our current fast-food epidemic, and the health impacts of our growing (pun not intended) obesity problem. How did it happen and why do we allow it to continue?

The majority of humans are fundamentally lazy. We do not want to have to think/stress over the mundane, day-to-day decisions. Fast food saves time, money and effort.

There are those who profit greatly from the fast food industry. Those that probably DON'T eat at fast food outlets, and would not like to be seen in one. Yet they control and compete for our fast food dollars. They choose selectively which health reports to credit, and which to ignore.

Apply this to AI thinking. There is likely to be a growing number of AI recommendations on many aspects of our lives that we consider mundane and not worth stressing over. Already we have a generation that follows their satnav device religiously. No need to think about the best way to get there. The answer has been provided.

Will we become a society that similarly chooses to accept what is being presented to us, considering it too mundane to apply our strenuous thinking to? Will we become Mentally Obese, just because it is easy, and we can ignore the health risks? Ceasing to think about what we are actually doing, and being sheep following instructions, could happen for the majority of people. Life is easier that way.

Do we let the AI advancement continue to a point where we need vast, government backed campaigns to tell people to take responsibility for their own life choices?

I am reminded of the man in China that drove his car into a flooded stretch of road and got stranded. When asked by the rescue team why he did it, he responded, “It was not my fault, my GPS told me to.”

Don’t forget that behind AI, just like the fast-food industry, there will always be a few people who make decisions for the masses. We are now back to the plot of that B-grade SciFi movie, only it is real and creeping up on us ever so quickly.