**POWERING BUSINESSES USING ARTIFICIAL INTELLIGENCE**

An Introduction To Artificial Intelligence:

In the field of computer science, artificial intelligence – sometimes nicknamed as machine intelligence – is “intelligence” showcased by machines of various kinds. This sort of intelligence is defined to be any device that perceives the environment it is surrounded by, and acts to maximize its chance of achieving specific goals.

Artificial intelligence is also used to describe machines that mimic cognitive functions that are associated with the human mind and its function, such as obtaining knowledge and solving various problems.

A phenomenon called the AI Effect takes place as machines gradually learn to solve increasingly difficult problems, as they do not require intelligent decisions and actions henceforth. Tesler’s Theorem has a very popular quip which is often quoted in various publishings as “AI is whatever has not been done yet”. This progress of intelligent problems becoming machine routine is the AI Effect.

AI systems are known to demonstrate behaviours that are frequently associated with human intelligence, such as planning, learning, reasoning, knowledge representation, problem solving, motion, perception, manipulation, and social intelligence. AI is now a very widespread phenomenon – it is present everywhere, from shopping list recommendations to facial recognition in pictures, from spam detection to fraud detection.

What can AI accomplish?:

There are two differing kinds of AI to understand what works how – Narrow Artificial Intelligence, and Artificial General Intelligence.

Narrow AI has had a vast number of applications emerge in the past few years. Interpretation of video feed from camera drones that carry out visual inspections of various infrastructures (oil fields, terrain analysis, etc.) is a specialized requirement that can be achieved by a specific kind of artificial intelligence.

Other such tasks include organization of all kinds of calendars, responding to customer-service queries utilizing chatbots and keyword recognition, co-ordination with other AI-enabled intelligent systems to carry out various kinds of tasks like hotel bookings at appropriate times and locations, spotting potential tumours and helping radiology as a field of work, flagging content found to be contextually inappropriate on the Internet, gathering all kinds of data from IoT devices and converting them into information and interpreting the next step in the plan, and so on.

Artificial General Intelligence, on the other hand, is a completely different ball game. It is very similar to the type of adaptable intellect found in human beings – a flexible form of intelligence capable of leaning how to carry out a wide range of varying tasks, from anything as simple as haircuts or data entry, to complex and complicated phenomena that can be solved from its previously accumulated experience.

AI can be commonly spotted in science fiction books, games, and movies, such as Skynet from the Terminator franchise, HAL from 2001: A Space Odyssey, and GladOS from the Portal series. Due to the varying behaviours of such machines, heated debates continue to happen over the sustainability of useful artificial intelligence, and the potential for the destruction of the human race should they become self-aware and pseudo-sentient.

Artificial Intelligence in business:

One of the strengths of AI systems is their learning potential from the wide range of scenarios that they can be exposed to. The more they see and experience, the more they learn. And where else would this work effectively but in the world of business, where past mistakes are the key to future breakthroughs?

A survey conducted by Harvard Business Review found that out of the 250 executives that are familiar with their companies’ use of cognitive technology, close to 75% of them believe that the use of AI will radically transform the organization within three years (as of February 2018). Their study conducted across 152 projects concluded that moon-shot projects are less likely to succeed than smaller projects that are cogs to improving their business process rather than transforming the business as a whole.

There are three kinds of business needs that AI can support as of now – automation of processes, data analysis and insights, and customer and employee engagement.

Robotic process automation is a breakthrough in administrative projects – instead of limiting humans to periodic routine tasks that come up again and again, automating such processes saves time, is more efficient and effective, has lesser margins of error, and is cheaper and delimiting. Human beings freed up from administrative work can be employed in sectors where AI cannot effectively work, such as those involving creative processes, ambiguous decision making, and diplomatic engagement.

Jim Walker, project leader for shared services organization in NASA, states, “So far it is not rocket science”.

Cognitive insight provided by machine learning differs from those available from traditional analytics. They are usually much more data-intensive and detailed on their part, and the models are typically trained on some parts of the data sets that are obtained by the systems; such model improvement leads to their ability to utilise new data to predict better and more accurately, and categorizing and organization of things gets better with time.

Various versions of machine learning projects attempt to mimic human brain activity in order to recognize patterns, which can be used to recognize images and speech in turn. This can help intelligent machines make new data available for better analytics. The labour-intensive past of data analytics pays off with the machines making probabilistic matches, where data identified is likely to be associated with the same institute, despite being present in a different format. This has been utilized profitably by various big-shot organizations, most notably General Electric – who integrated supplier data and saved USD 80 million in its first year due to redundancy elimination and improved contract negotiation.

In conclusion:

Artificial intelligence is not a thing of science fictions and dystopian novels as they become more commonplace and impact our various lives in a meaningful way (looking at you, Alexa). While AI is a new phenomenon to be accepted in mainstream society, it has been decades of work to significantly progress toward developing artificially intelligent systems, making them a technological reality.

Despite various warnings that AI will take over humanity one day, be it in the industrial sector or a species as a whole, we will never know until we take a decision – which we have to, in good time. Indecisiveness puts a pause on the progress of our society as a whole, but does nothing to stop the progress of time towards an inevitable extinction.

AI should rather be seen as a supporting tool. While it faces problems completing commonplace tasks in the real world, it is adept at processing and analysing mounds and piles of data much quicker and more accurate than a human being. Software enabled with AI return with synthesized courses of action and present them to the human user, who then has to take a step and decide for the system, providing a learning experience to them as to what makes a human think how, leading to a decision.

Such traits make AI highly valuable in the business sector, apart from various other industries, whether it comes to helping people around various tasks, or monitoring various physical aspects of a system and giving it meaningful insight to reduce the margin of error for human interpretation.

AI is also changing the way customer relationship management works in various fields of work. Application of artificial intelligence to software that required heavy human intervention turns a regular customer relationship management algorithm into a self-updating, auto-corrective system that monitors all pieces of all relationships effectively, always staying on top as a relationship manager for all employees and employers.