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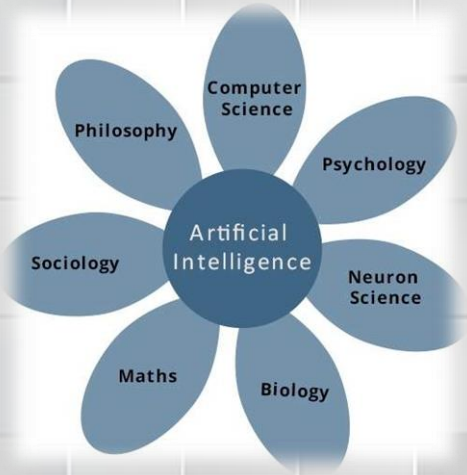
Artificial Intelligence

Calling this 21st century, the new generation of Artificial Intelligence machines and applications would not be wrong because the speed at which artificial intelligence has been taking over the world it may even leave behind bullet train in coming years.

Let's understand the term "AI" aka "Artificial Intelligence"

When the term AI was coined in 1955, it referred to machines that could perform tasks that required intelligence when performed by humans. It has come to mean machines that simulate human cognitive processes, i.e. they mimic the human brain in how they 'think' and process. They learn, reason, judge, predict, infer and initiate action.
In our experience, AI tends to be:
Aware: is cognizant of context and human language
Analytical: analyses data and context to learn
Adaptive: uses that learning to adapt and improve
Anticipatory: understands likely good "next moves"
Autonomous: is able to act independently without explicit programming
Most AI today cannot do all of these things. The few that can, can only do so for a specific application or use case. For example, many recommendation engines, or digital personal assistants like Apple's Siri, can understand human language and then search through large volumes of data and deliver relevant answers or suggestions on what to buy or watch on TV. But they can't clean your house or drive cars.
We are seeing self-driving cars, which is pretty amazing. But that car will not be able to learn chess or cook, let alone combine even the smallest subset of actions together that constitute being human.
All of these types of AI do one or two things humans can already do pretty well, but they do save us time and could end up doing those specific things far better than any human could.



A science of integrated AI and curious robotics.

Everything has AI now. Period-tracking app Flo "uses a neural network approach" to deliver "high period forecast accuracy"; food delivery app Just Eat launched a chatbot that "sees AI integrated into the ordering experience to ensure that customers

receive the best, round the clock support and service"; restaurant guide Borsch "uses artificial intelligence to help people discover the yummiest dishes around".

In fact, 2017 looks like it could be the most important year yet for the technology: AI will butt up against not only what is possible, but also what is desirable for the first time.

Like many futures, the AI revolution feels interminably slow to live through, and will feel like it happened in an instant in hindsight. The first pivotal year was 2011. That was when Apple's Siri hit iPhones, introducing the world to the first major "virtual assistant". It was also the year the Google Brain project was instituted: the search engine's blue-sky research team aimed to address as many tasks as possible through neural network-based learning, the computational technique that has come to define what we mean by artificial intelligence.

Which is not to say that 2017 won't be a ground-breaking year for AI. The biggest effect will be the step change in the amount of data which companies such as Google and Amazon have access to. When Google released its voice-controlled, AI-powered smart home device, Google Home, in 2016, it already impressed some with its abilities. But, says Fernando Pereira, who leads Google's natural language understanding projects, that's only the start.

This is the story Google wants to tell of machine learning: an acceleration, turning the coming year into an inflection point, the instant that machine learning became good enough to start trusting.

It's certainly one possible outcome of the next year, although it's not yet clear whether Google will be the one to deliver on it; Amazon has been keeping pace with its own Alexa assistant, for instance, while others including Facebook, Microsoft, IBM and Baidu have been trumpeting their own machine-learning successes.

As machine learning steps out of the shadows and companies ask for ever more data to train their algorithms, the backlash begins. Already, Google faces competition from other companies over how much of your life it wants to manage.

One day, those downsides will outweigh the up, and the world will move on. But for now, there's still a world of possibility.

-Nikhil Kumar and Divya Farswan of MCA- I

Traditional Sub-Areas of AI:

1.) Search and Planning deal with reasoning about goal-directed behaviour. Search plays a key role, for example, in chess-playing programs such as Deep Blue, in deciding which move (behaviour) will ultimately lead to a win (goal).

2.) The area of Knowledge Representation and Reasoning involves processing information (typically when in large amounts) into a structured form that can be queried more reliably and efficiently. IBM's Watson program, which beat human contenders to win the Jeopardy challenge in 2011, was largely based on an efficient scheme for organizing, indexing, and retrieving large amounts of information gathered from various sources.

3.) Machine Learning is a paradigm that enables systems to automatically improve their performance at a task by observing relevant data. Indeed, machine learning has been the key contributor to the AI surge in the past few decades, ranging from search and product recommendation engines, to systems for speech recognition, fraud detection, image understanding, and countless other tasks that once relied on human skill and judgment. The automation of these tasks has enabled the scaling up of services such as e-commerce.

4.) As more and more intelligent systems get built, a natural question to consider is how such systems will interact with each other. The field of Multi-Agent Systems considers this question, which is becoming increasingly important in on-line marketplaces and transportation systems.

5.) From its early days, AI has taken up the design and construction of systems that are embodied in

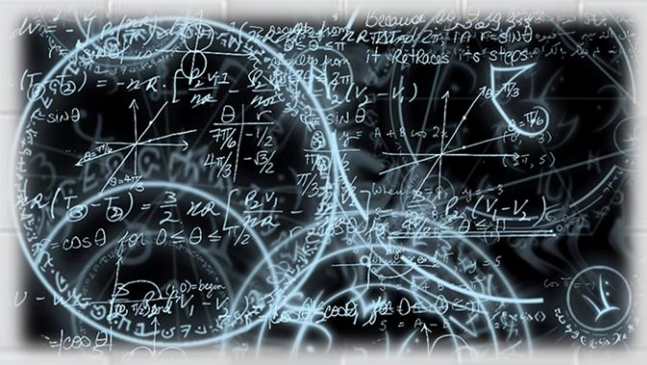
the real world. The area of Robotics investigates fundamental aspects of sensing and acting—and especially their integration—that enable a robot to behave effectively. Since robots and other computer systems share the living world with human beings, the specialized subject of Human Robot Interaction has also become prominent in recent decades.

6.) Machine perception has always played a central role in AI, partly in developing robotics, but also as a completely independent area of study. The most commonly studied perception modalities are Computer Vision and Natural Language Processing, each of which is attended to by large and vibrant communities.

7.) Several other focus areas within AI today are consequences of the growth of the Internet. Social Network Analysis investigates the effect of neighbourhood relations in influencing the behaviour of individuals and communities. Crowdsourcing is yet another innovative problem-solving technique, which relies on harnessing human intelligence (typically from thousands of humans) to solve hard computational problems.

AI policies and should we be concerned?

Throughout history, humans have both shaped and adapted to new technologies. This report anticipates that advances in AI technologies will be developed and fielded gradually—not in sudden, unexpected jumps in the techniques themselves—and will build on what exists today, making this adaptation easier. The measure of success for AI applications is the value they create for human lives. Going forward, the ease with which people use and adapt to AI applications will likewise largely determine their success. Conversely, since AI applications are susceptible to errors and failures, a mark of their success will be how users perceive and tolerate their shortcomings.



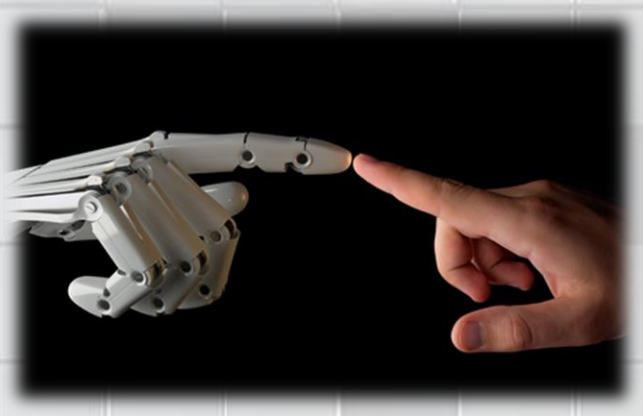
As AI becomes increasingly embedded in daily lives and used for more critical tasks, system mistakes may lead to backlash from users and negatively affect their trust. Though accidents in a self-driving car may be less probable than those driven by humans, for example, they will attract more attention. Design strategies that enhance the ability of humans to understand AI systems and decisions (such as explicitly explaining those decisions), and to participate in their use, may help build trust and prevent drastic failures. Likewise, developers should help manage people's expectations, which will affect their happiness and satisfaction with AI applications. Frustration in carrying out functions promised by a system diminishes people's trust and reduces their willingness to use the system in the future. Another important consideration is how AI systems that take over certain tasks will affect people's affordances and capabilities. As machines deliver super-human performances on some tasks, people's ability to perform them may wither.
Already, introducing calculators to classrooms has reduced children's ability to do basic arithmetic operations. Still, humans and AI systems have complementary abilities. People are likely to focus on tasks that machines cannot do as well, including complex reasoning and creative expression. Already, children are increasingly exposed to AI applications, such as interacting with personal assistants on cell phones or with virtual agents in theme parks. Having early exposure will improve children's interactions with AI applications, which will become a natural part of their daily lives. As a result, gaps will appear in how younger and older generations perceive AI's influences on society.

-Diksha Singla, Ankita Gupta and Latika Malhotra of MCA- I

AI future and will it kill your job?

Now days, Humans live in the world of machines. It becomes part of human life. Without machines we can't imagine out life, we start using machines before waking up and use even after sleep. In world of Machines, Machines are useless without Artificial Intelligence. Machines make their importance in human life because it starts behaving like a human because of Artificial Intelligence. Artificial Intelligence plays an important role to make a machine like human. Human doesn't need any effort to operate like geniuses. They operate them like a friend.

Artificial Intelligence is intelligence exhibited by machines, rather than human or animals. Artificial Intelligence is capable to understand human voice, recognize human handwriting, competing at high level strategic games like Chess and Go, drive cars, military simulations, interpreting complex data and many more. In the 1960s, one of the founder of AI field, Herbert Simon, predicated that "machines will be capable within twenty years, of doing any work a man can do". According to Stephen Hawking, the development of full artificial intelligence could spell the end of human race. Once humans develop artificial intelligence, it will take off on its own and redesign itself at an ever-increasing rate. Humans, who are limited by slow biological evolution, couldn't complete and would be superseded.



Now days, there is not a single field where AI is not working and slowly-slowly is becoming as intelligent as humans. It can do most of tasks which we can't imagine 4 decades ago. Some of companies start testing the AI as option of human resources. This is repetition of history. First machines are performing work which human can't, but when machines start innovating then they also start completing the human talent and today it replaces many of the human jobs which doesn't need any or nominal intelligence. This means machines with AI increasing its domain for killing human jobs. Research shows that, AI could lead some 230,000 finance jobs to disappear by 2025.
For example, Salesforce is start using AI to democratize SQL, so anyone can query databases in natural languages. In practice this means that you could simply ask any question to database as asking to friend and an appropriate database could automatically convert natural language to SQL query and displays result. This signifies that to work with database there is no need of any extra skill and AI kill the required talent which is directly killing of a jobs. This idea is not new, Start-up like ClearGraph which acquired by Tableau already using this.
According to me, we are moving towards era of AI, where human doesn't need any special talent for survival until AI is under control constraints. This leads to decrease in human Intelligence and make us lazy but once it starts superseding humans it can't be control again.

Right to Privacy is a fundamental right

The Supreme Court (SC) on 24th August ruled that privacy is a fundamental right because it is intrinsic to the right to life. 9 judge bench delivered landmark judgement and unanimously declaring the Right to Privacy is fundamental right under constitution. SC has categorically held that Right to privacy will be protected as intrinsic part of Right to life and personal liberty under Article 21 of constitution of India. Judgement represents quantum leap in the evolution of legal jurisprudence pertaining to privacy in India.
Privacy is the basis of the freedom to differ. With unrestricted surveillance, every time you disagree with the state, they can take advantage of the huge imbalance of information between them and you. They can put you under pressure to concede or use information that you did not even know they possessed to embattle you in court. And their story need not be true. The availability of mass data does not automatically reveal the truth. The truth has to be extracted from it. The details of your phone calls, movements, purchases, demographics and social interactions can be used to construct any number of different truths.
It added that the right to privacy is intrinsic to the entire fundamental rights chapter of the Constitution. This judgement is a blow to Aadhaar as the Centre now has to convince SC that forcing citizens to give a sample of their fingerprints and their iris scan does not violate privacy.
The SC bench's judgment will touch the lives of 134 crore Indians. It was not meant to decide on the fate of Aadhaar, just on whether privacy of an individual was a part of their inviolable fundamental rights. What this means is a five-judge bench of the SC will test the validity of Aadhaar on the touchstone of privacy as a fundamental right.

The fact that all the judges unanimously came down on this argument shows how much the government misunderstood the constitutional underpinnings of privacy as a value in it and as an ineluctable facet of human dignity.

Permil Garg, Ishitia Taneja and Dhairya Aggarwal of MCA -I

Interesting Facts about AI

Most AI are "Female"

Artificial Intelligence Can Repair Itself

Artificial Intelligence Can Write

Artificial Intelligence can be a Fierce Poker Player

Artificial Intelligence Can Learn

AI Will Become Smarter ThanHuman

Nautlius an AI can predict the future

IBM Watson can teach people how to cook

- Article- Ankita Gupta, Nikhil Kumar Dhariya Aggarwal, Diksha Singla, Divya Farswan, Latika Malhotra and Permil Garg of MCA
- Designing- Nikhil Kumar of MCA

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