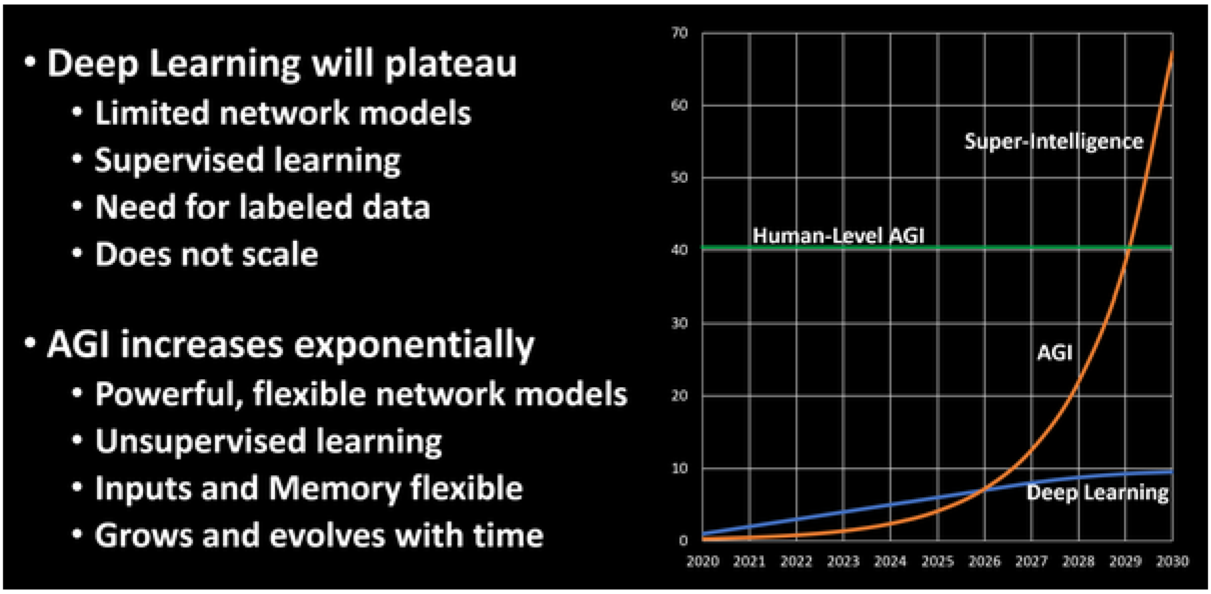
Why is artificial intelligence a hype?

Source: https://www.quora.com/Why-is-artificial-intelligence-a-hype

Brent Oster
former Deep Learning Solution Architect at NVIDIA (2008-2018)

I worked for a decade at NVIDIA, as a Solution Architect to research deep learning techniques, and present solutions to customers to solve their problems and to help implement those solutions. Now, for the past 3 years I have been working on what comes next after DNNs and Deep Learning. I will cover both, showing how it is very difficult to scale DNNs to AGI, and what a better approach would be.

Here is a diagram of what the relative scaling of the technologies would look like with time:



What we usually think of as Artificial Intelligence (AI) today, when we see human-like robots and holograms in our fiction, talking and acting like real people and having human-level or even superhuman intelligence and capabilities, is actually called Artificial General Intelligence (AGI), and it does NOT exist anywhere on earth yet.

What we actually have for AI today is much simpler and much more narrow Deep Learning (DL) that can only do some very specific tasks better than people. It has fundamental limitations that will not allow it to become AGI, so if that is our goal, we need to innovate and come up with better networks and better methods for shaping them into an artificial intelligence.

Lets look at:

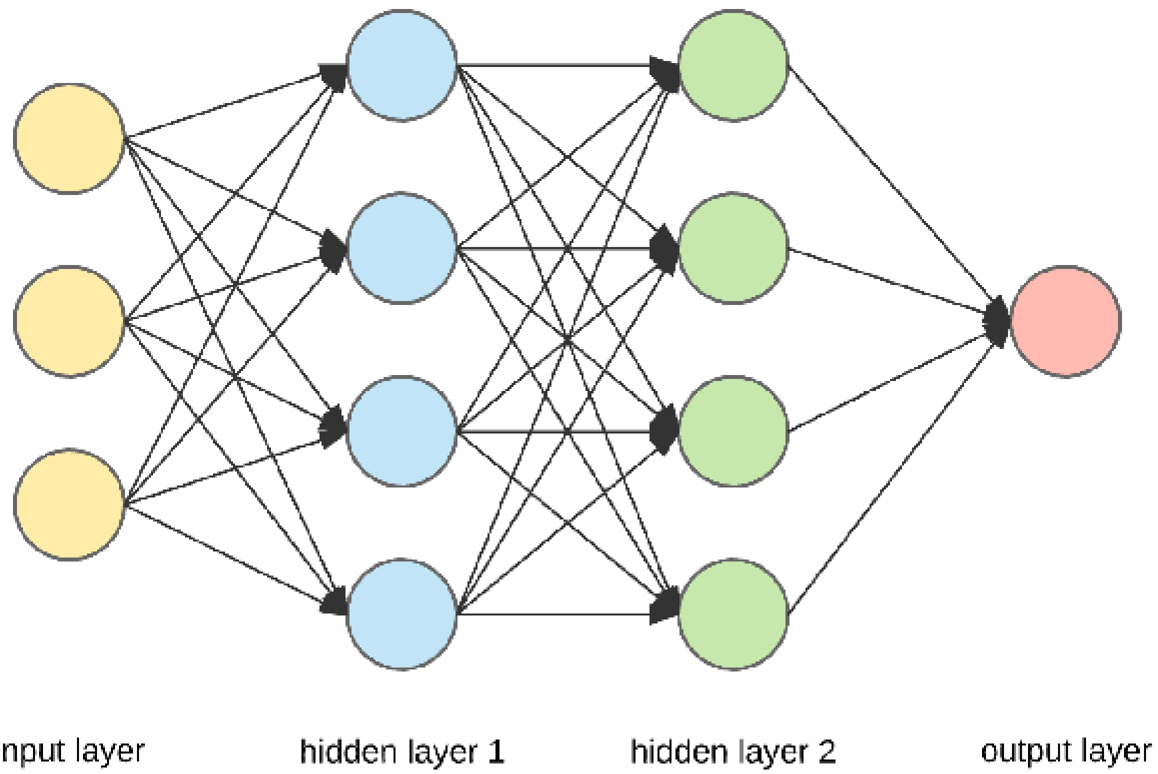
1. Where Deep Learning and Reinforcement Learning are today
2. What their limitations are - what can they do and not do?
3. The neuroscience of human intelligence
4. A possible architecture to achieve artificial general intelligence

Today's Deep Learning and Reinforcement Learning

Let me write down some extremely simplistic definitions of what we do have today, and then go on to explain what they are in more detail, where they fall short, and some steps towards creating more fully capable 'AI' with new architectures.

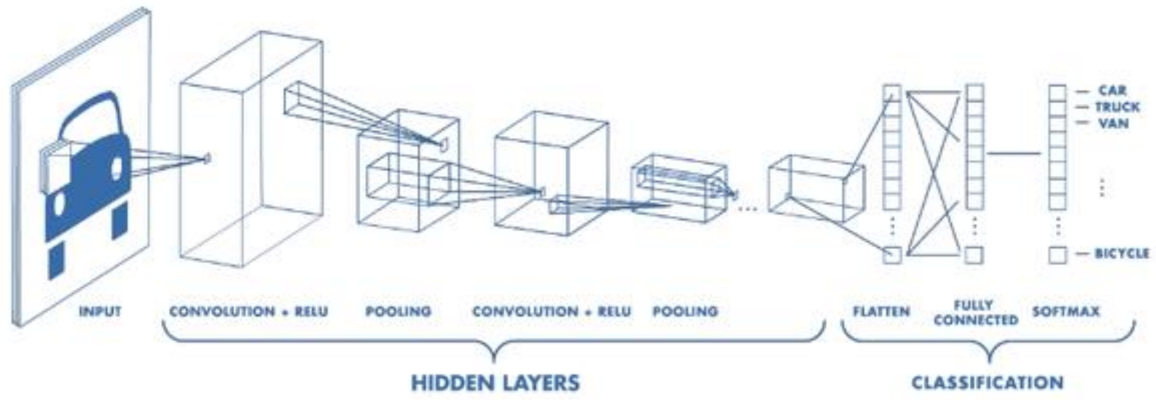
Machine Learning - Fitting functions to data, and using the functions to group it or predict things about future data. (Sorry, greatly oversimplified)

Deep Learning - Fitting functions to data as above, where those functions are layers of nodes that are connected (densely or otherwise) to the nodes before and after them, and the parameters being fitted are the weights of those connections.

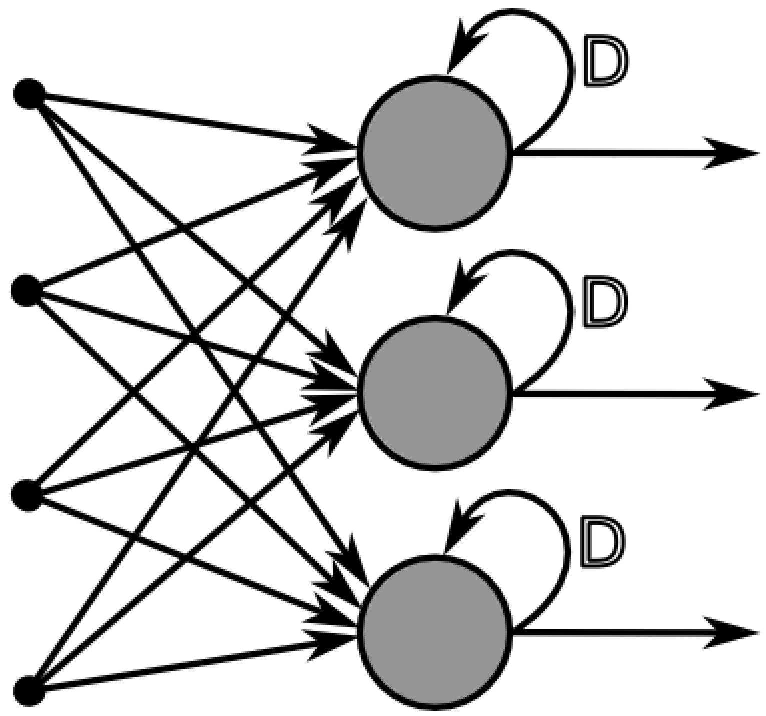


Deep Learning is what what usually gets called AI today, but is really just very elaborate pattern recognition and statistical modelling. The most common techniques / algorithms are Convolutional Neural Networks (CNNs), Recurrent Neural Networks (RNNs), and Reinforcement Learning (RL).

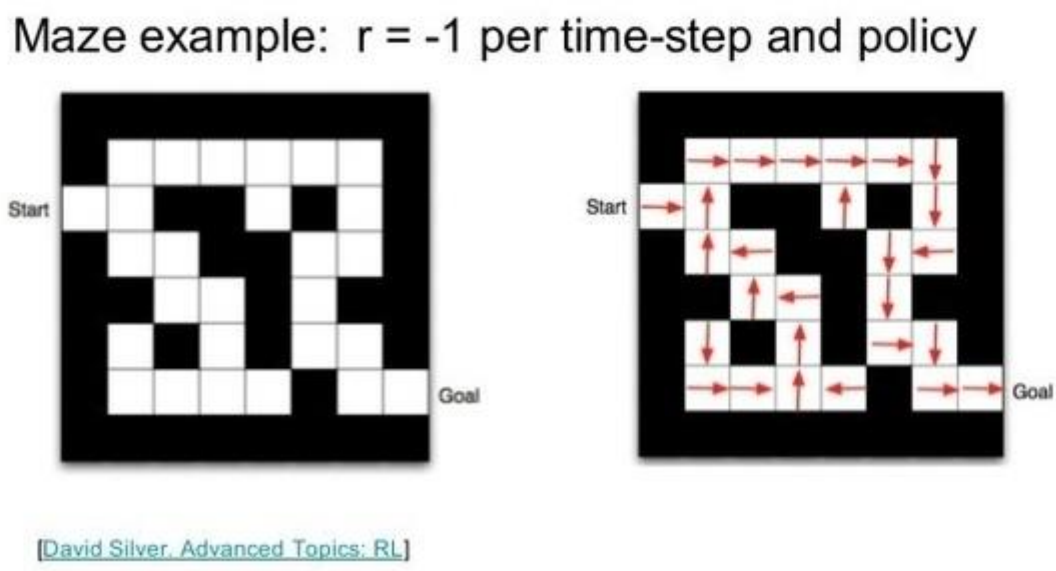
Convolutional Neural Networks (CNNs) have a hierarchical structure (which is usually 2D for images), where an image is sampled by (trained) convolution filters into a lower resolution map that represents the value of the convolution operation at each point. In images it goes from high-res pixels, to fine features (edges, circles,….) to coarse features (noses, eyes, lips, … on faces), then to the fully connected layers that can identify what is in the image. The cool part of CNNs is that the convolutional filters are randomly initialized, then when you train the network, you are actually training the convolution filters. For decades, computer vision researchers had hand-crafted filters like this, but could never get results as accurate as CNNs can get. Additionally, the output of a CNN can be an 2D map instead of a single value, giving us a image segmentation. CNNs can also be used on many other types of 1D, 2D and even 3D data.



Recurrent Neural Networks (RNNs) work well for sequential or time series data. Basically each 'neural' node in an RNN is kind of a memory gate, often an LSTM or Long Short Term Memory cell. When these are linked up in layers of a neural net, these cells/nodes also have recurrent connections looping back into themselves and so tend to hold onto information that passes through them, retaining a memory and allowing processing not only of current information, but past information in the network as well. As such, RNNs are good for time sequential operations like language processing or translation, as well as signal processing, Text To Speech, Speech To Text,…and so on.



Reinforcement Learning is a third main ML method, where you train a learning agent to solve a complex problem by simply taking the best actions given a state, with the probability of taking each action at each state defined by a policy. An example is running a maze, where the position of each cell is the ‘state’, the 4 possible directions to move are the actions, and the probability of moving each direction, at each cell (state) forms the policy.



By repeatedly running through the states and possible actions and rewarding the sequence of actions that gave a good result (by increasing the probabilities of those actions in the policy), and penalizing the actions that gave a negative result (by decreasing the probabilities of those actions in the policy). In time you arrive at an optimal policy, which has the highest probability of a successful outcome. Usually while training, you discount the penalties/rewards for actions further back in time.

In our maze example, this means allowing an agent to go through the maze, choosing a direction to move from each cell by using the probabilities in the policy, and when it reaches a dead-end, penalizing the series of choices that got it there by reducing the probability of moving that direction from each cell again. If the agent finds the exit, we go back and reward the choices that got it there by increasing probabilities of moving that direction from each cell. In time the agent learns the fastest way through the maze to the exit, or the optimal policy. Variations of Reinforcement learning are at the core of the AlphaGo AI and the Atari Video Game playing AI.

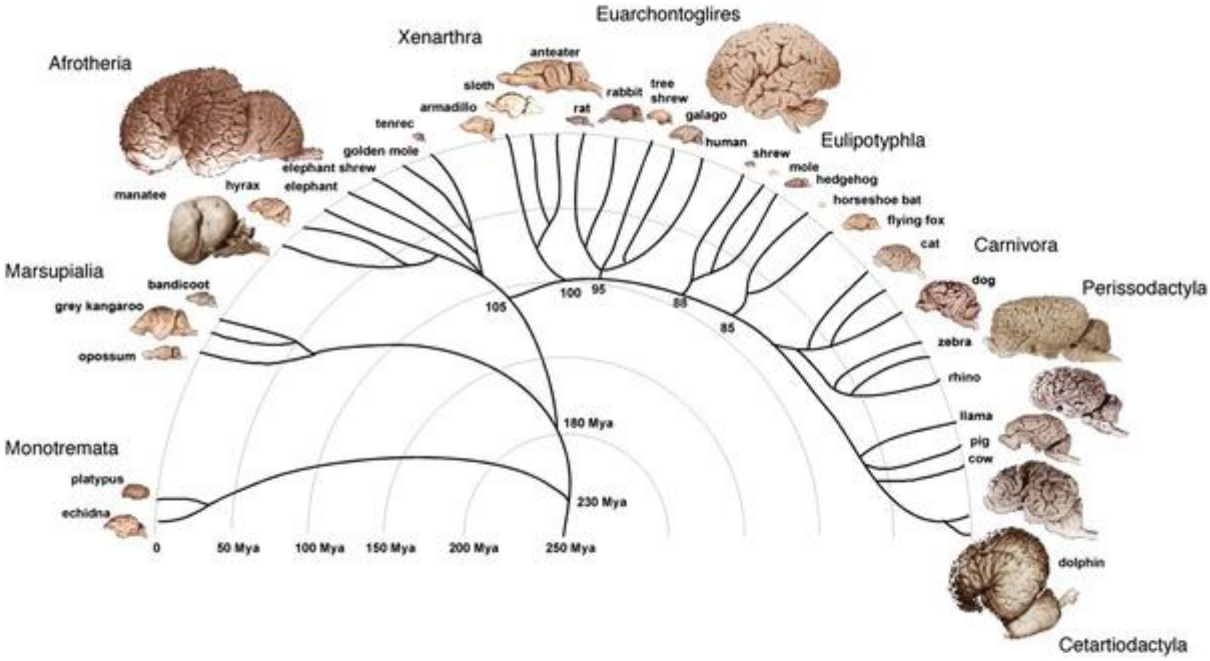
But all these methods just find a statistical fit - DNNs find a narrow fit of outputs to inputs that does not usually extrapolate outside the training data set. Reinforcement learning finds a pattern that works for the specific problem (as we all did vs 1980s Atari games), but not beyond it. With today's ML and deep learning, the problem is there is no true perception, memory, prediction, cognition, or complex planning involved. There is no actual intelligence in today's AI.

Keep reading if you are interested in how human neuroscience works, and how we could do a real artificial general intelligence.

The Neuroscience of Human Intelligence

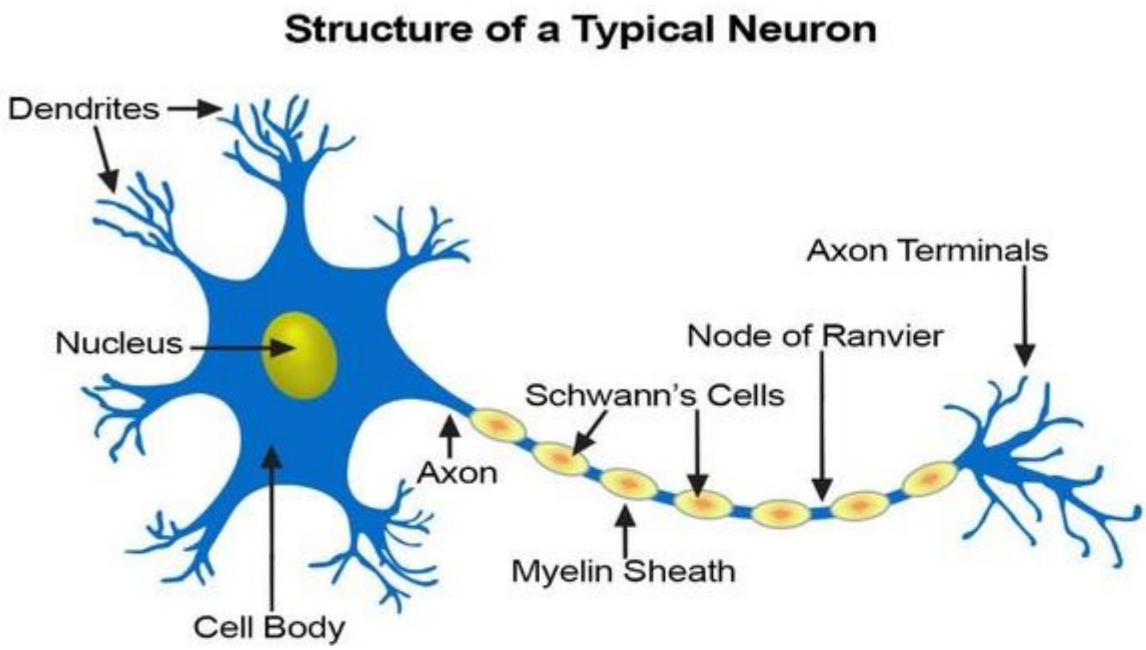
To go beyond where we are today with AI, to pass the threshold of human intelligence, and create an artificial general intelligence requires an AI to have the ability to see, hear, and experience its environment. It needs to be able to learn that environment, to organize its memory non-locally and store abstract concepts in a distributed architecture so it can model its environment, and people in it. It needs to be able speak conversationally and interact verbally like a human, and be able to understand the experiences, events, and concepts behind the words and sentences of language so it can compose language at a human level. It needs to be able solve all the problems that a human can, using flexible memory recall, analogy, metaphor, imagination, intuition, logic and deduction from sparse information. It needs to be capable at the tasks and jobs humans are and express the results in human language in order to be able to do those tasks and professions as well as or better than a human.

The human brain underwent a very complicated evolution starting 1 billion years ago from the first multi-cellular animals with a couple neurons, through the Cambrian explosion where eyes, ears and other sensory systems, motor systems, and intelligence exploded in an arms race (along with armor, teeth, and claws). Evolution of brains then followed the needs of fish, reptiles, dinosaurs, mammals, and finally up the hominids lineage about 5-10 million years ago.



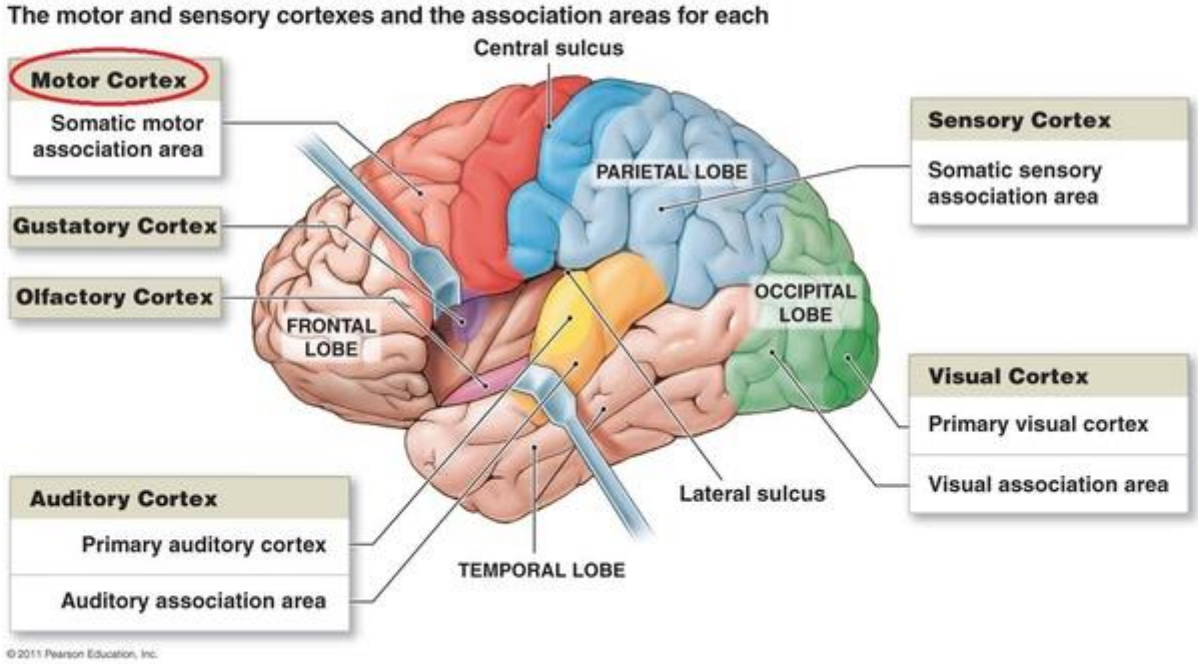
Much of the older parts of the human brain were evolved for the first billion years of violence and competition, not the last thousands of years of human civilization, so in many ways out brain is maladapted for our modern life in the information age, and not very efficient at many of the tasks we use it for in advanced professions like law, medicine, finance, and administration. A synthetic brain, focused on doing these tasks optimally can probably end up doing them much better, so we do not seek to re-create the biological human brain, but to imbue ours with the core functionality that makes the human brain so flexible, adaptable and powerful, then augment that with CS database and computing capabilities to take it far beyond human.

Because deep learning DNNs are so limited in function and can only train to do narrow tasks with pre-formatted and labelled data, we need better neurons and neural networks with temporal spatial processing and dynamic learning. The human brain is a very sophisticated bio-chemical-electrical computer with around 100 billion neurons and 100 trillion connections (and synapses) between them. I will describe two decades of neuroscience in the next two paragraphs, but here are two good videos about the biological Neuron and Synapse from ‘2-Minute Neuroscience’ on YouTube that will also help.

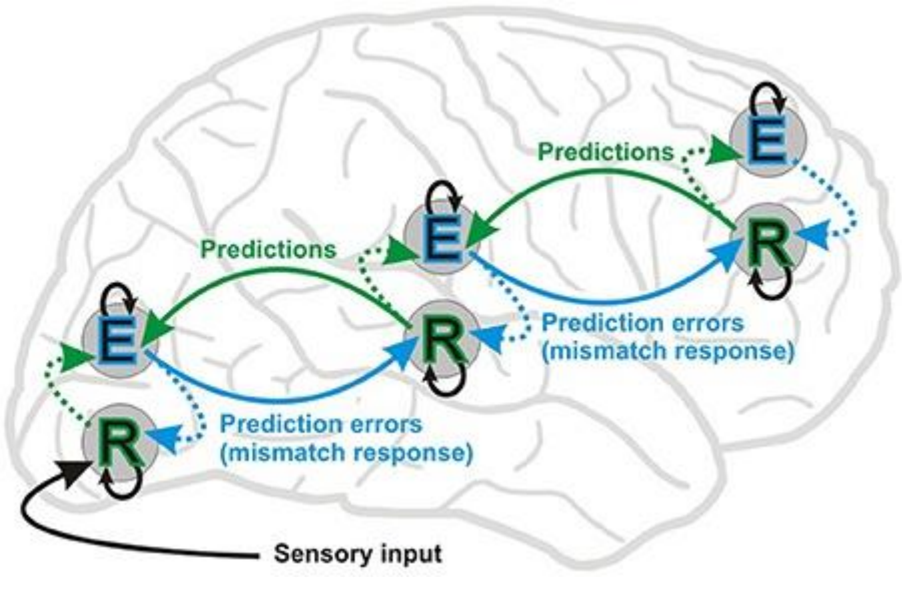


Each neuron takes in spikes of electrical charge from its dendrites and performs a very complicated integration in time and space, resulting in the charge accumulating in the neuron and (once exceeding an action potential) causing the neuron to fire spikes of electricity out along its axon, moving in time and space as that axon branches and re-amplifies the signal, carrying it to thousands of synapses, where it is absorbed by each synapse. This process causes neurotransmitters to be emitted into the synaptic cleft, where they are chemically integrated (with ambient neurochemistry contributing). These neurotransmitters migrate across the cleft to the post-synaptic side, where their accumulation in various receptors eventually cause the post-synaptic side to fire a spike down along the dendrite to the next neuron. When two connected neurons fire sequentially within a certain time, the synapse between them becomes more sensitive or potentiated, and then fires more easily. We call this Hebbian learning, which is constantly occurring as we move around and interact with our environment.

The brain is organized into cortices for processing sensory inputs, motor control, language understanding, speaking, cognition, planning, and logic. Each of these cortices evolved to have networks with very sophisticated space and time signal processing, including feedback loops and bidirectional networks, so visual input is processed into abstractions or 'thoughts' by one directional network, and then those thoughts are processed back out to a recreation of the expected visual representation by another, complementary network in the opposite direction, and they are fed back into each other throughout. Miguel Nicolelis is one of the top neuroscientists to measure and study this bidirectionality of the sensory cortices.



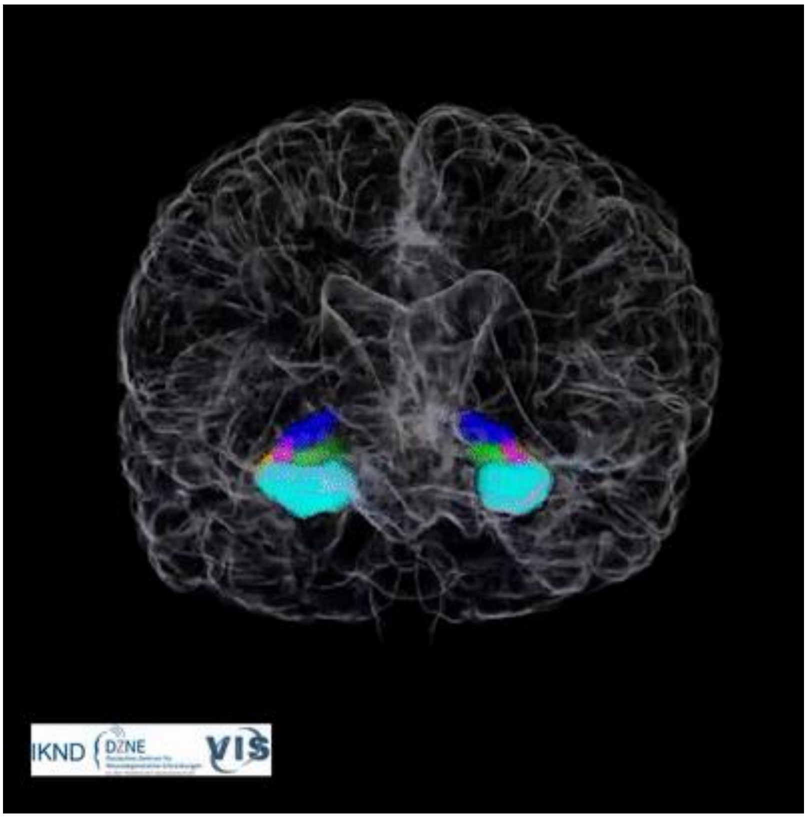
For an example, picture a ‘fire truck’ with your eyes closed and you will see the feedback network of your visual cortex at work, allowing you to visualize the ‘thought’ of a fire truck into an image of one. You could probably even draw it if you wanted. Try looking at clouds, and you will see shapes that your brain is feeding back to your vision as thoughts of what to look for and to see. Visualize shapes and objects in a dark room when you are sleepy, and you will be able to make them take form, with your eyes open



These feedback loops not only allow us to selectively focus our senses, but also train our sensory cortices to encode the information from our senses into compact ‘thoughts’ or Engrams that are stored in the hippocampus short term memory. Each sensory cortex has the ability to decode them again and to provide a perceptual filter by comparing what we are seeing to what we expect to see, so our visual cortex can focus on what we are looking for and screen the rest out as we stated in the previous paragraph.

The frontal and pre-frontal cortex are thought to have tighter, more specialized feedback loops that can store state (short-term memory), operate on it, and perform logic and planning at the macroscale. All our cortices (and brain) work together and can learn associatively and store long-term memories by Hebbian learning, with the hippocampus being a central controller for memory, planning, and prediction.

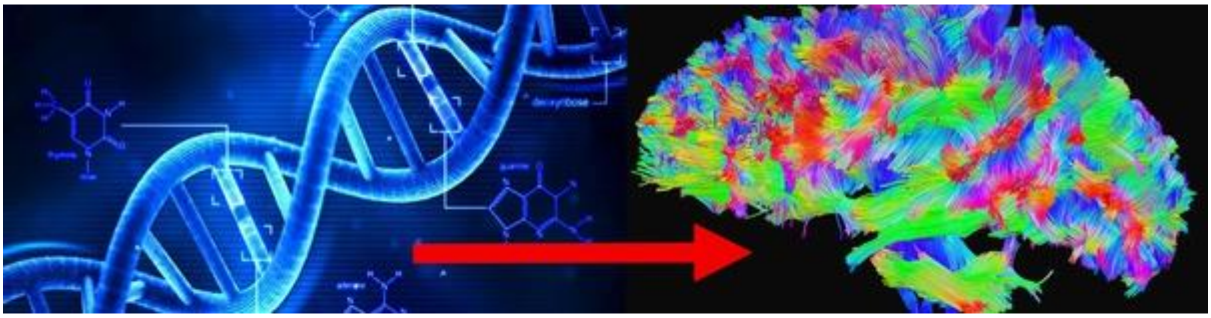
Human long-term memory is less well known. We do know that it is non-local, as injuries to specific areas of the brain don’t remove specific memories, even a hemispherectomy which removes half the brain. Rather, any given memory appears to be distributed through the brain, stored like a hologram or fractal, spread out over a wide area with thin slices. We know that global injury to the brain, like Alzheimer’s - causes a progressive global loss of all memories, which all degrade together, but no structure in the brain seems to contribute more to this long-term memory loss than another.



However, specific injury to the hippocampus causes the inability to transfer memory between short term and long-term memory. Coincidentally, it also causes the inability to predict and plan and other cognitive deficits, showing that all these processes are similar. This area is the specialty of prominent memory neuroscientist, Eleanor Maguire, who states that the reason for memory in the brain is not to recall an accurate record of the past, but to predict the future and reconstruct the past from the scenes and events we experienced, using the same stored information and process in the brain that we use to look into the future to predict what will happen, or to plan what to do. Therefore the underlying storage of human memories must be structured in an abstracted representation in such a way that memories can be reconstructed from some for the purpose at hand, be it reconstructing the past, predicting the future, planning, or imagining stories and narratives – all hallmarks of human intelligence.

Replicating all of the brain's capabilities seems daunting when seen through the tools of deep learning – image recognition, vision, speech, natural language understanding, written composition, solving mazes, playing games, planning, problem solving, creativity, imagination, because deep learning is using single-purpose components that cannot generalize. Each of the DNN/RNN tools is a one-of, a specialization for a specific task, that cannot generalize, and there is no way we can specialize and combine them all to accomplish all these tasks.

But, the human brain is simpler, more elegant, using fewer, more powerful, general-purpose building blocks – the biological neuron, and connecting them by using the instructions of a mere 8000 genes, so nature has, through a billion years of evolution, come up with an elegant and easy to specify architecture for the brain and its neural network structures that is able to solve all the problems we met with during this evolution. We are going to start by just copying as much about the human brain's functionality as we can, then using evolution to solve the harder design problems.

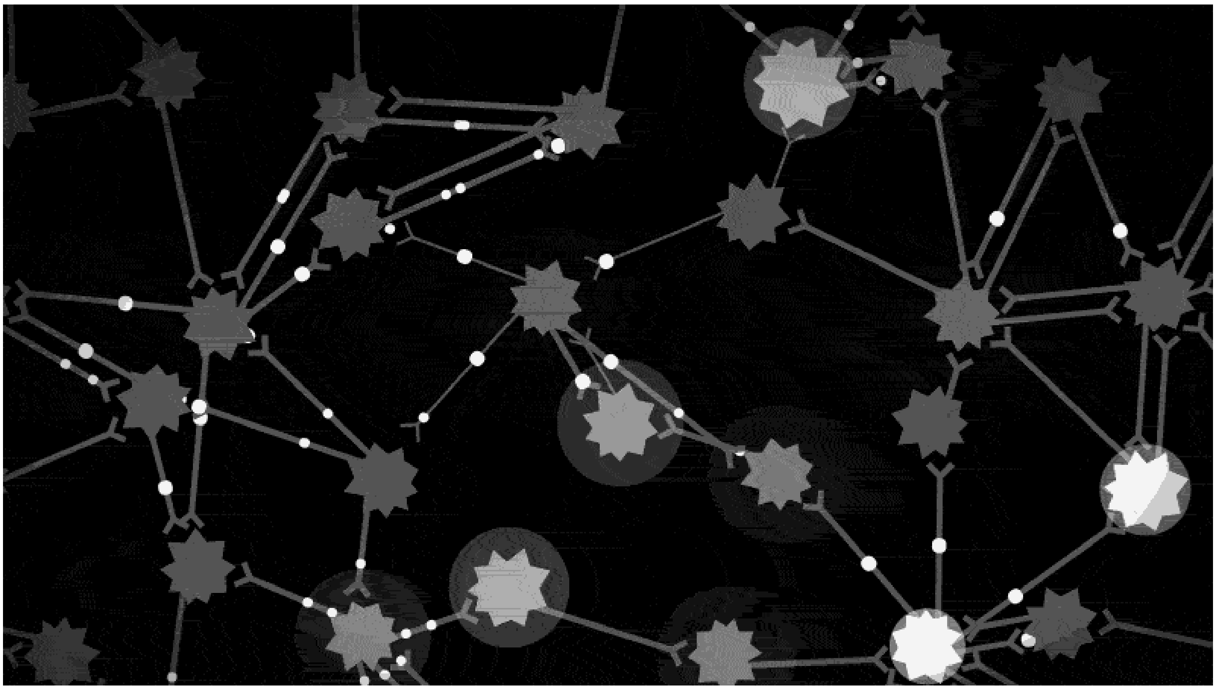


So now we know more about the human brain, and how the neurons and neural networks in it are completely different from the DNNs that deep learning is using, and how much more sophisticated our simulated neurons, neural networks, cortices and neural networks would have to be to even begin attempting to build something on par with, or superior to the human brain.

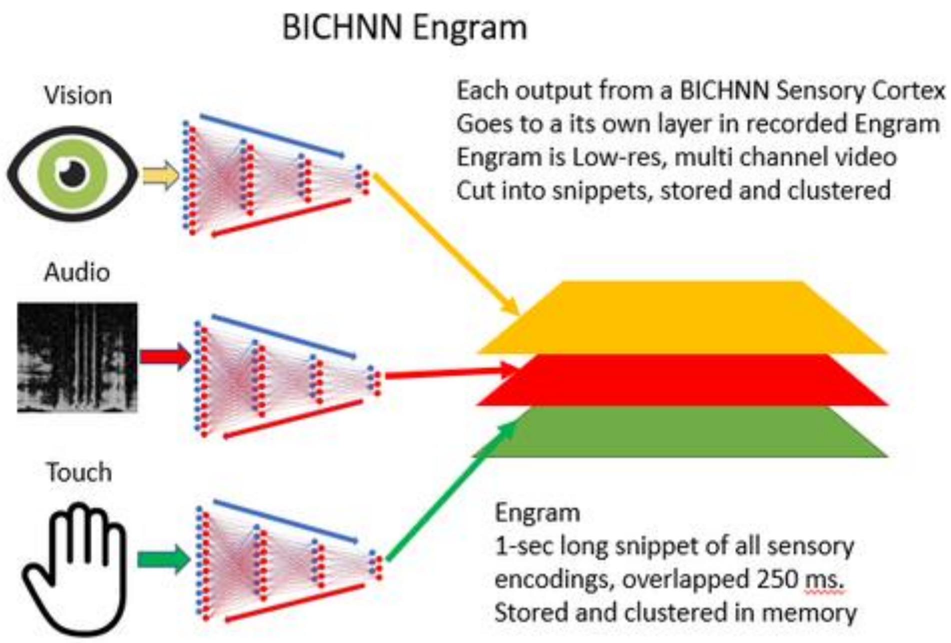
Here is a the video about neuroscience and AGI that I submitted to NVIDIA GTC 2021 Conference

How can we build an Artificial General Intelligence?

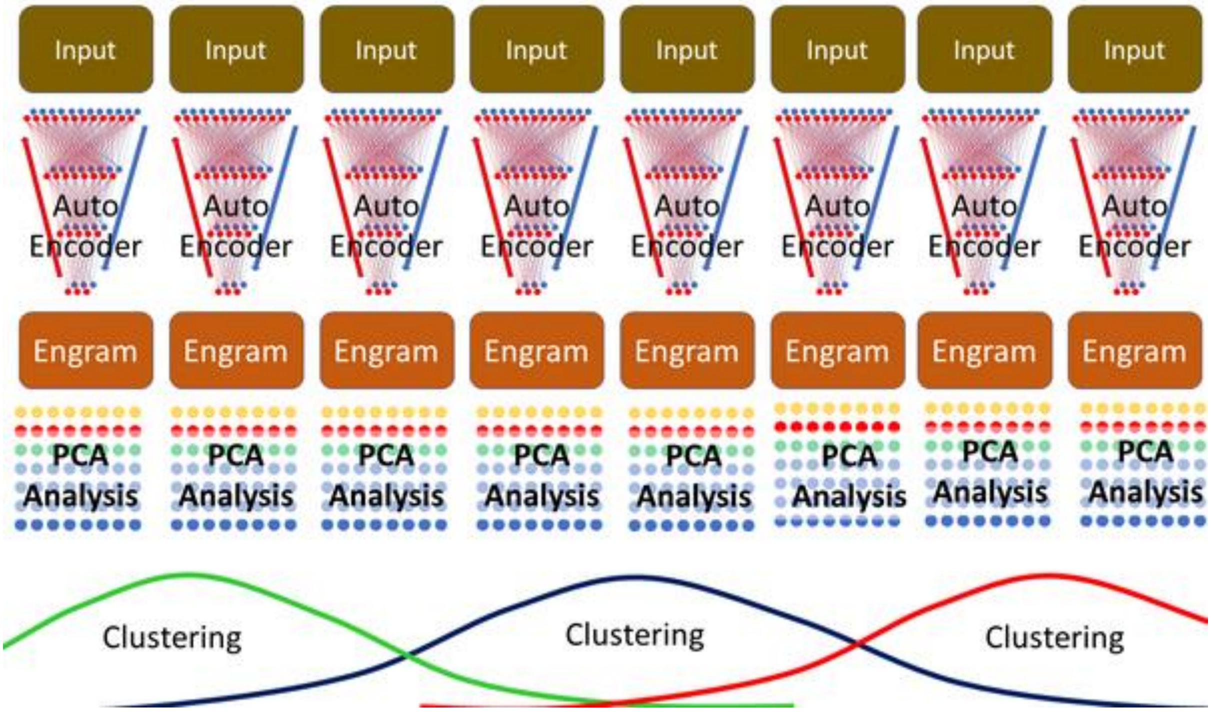
To build an AGI, we need better neural networks, with more powerful processing in both space and time and the ability to form complex circuits with them, including feedback. We will pick spiking neural networks, which have signals that travel between neurons, gated by synapses.



With these, we can build bidirectional neural network autoencoders that take sensory input data and encode it to compact engrams with the unique input data, keeping the common data in the autoencoder. This allows us to process all the sensory inputs – vision, speech, and many others into consolidated, usable chunks of data called engrams, stored to short-term memory.

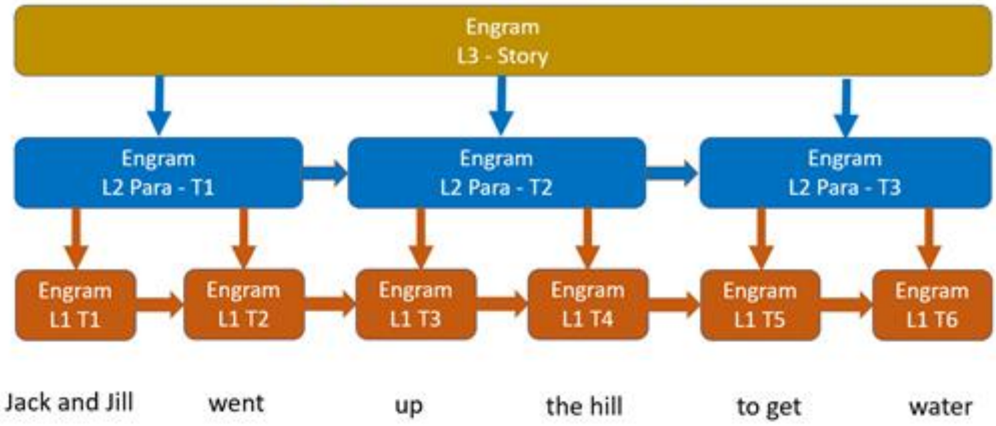


Now to store it to long term memory, we process a set of input engrams to reside in a multi-layered, hierarchical, fragmented long-term memory. First we sort the engrams into clusters based on the most important information axis, then autoencode those clusters further with bidirectional networks to create engrams that highlight the next most important information, and so on. At each layer, the bidirectional autoencoder is like a sieve, straining out the common data or features in the cluster, leaving the unique identifying information in each engram, allowing them to then be sorted on the next most important identifying information. Our AI basically divides the world it perceives by distinguishing features, getting more specific as it goes down each level, with the lowest level engram containing the key for how to reconstruct the engram from the features stored in the hierarchy. This leaves it with a differential, non-local, distributed, Hierarchical Fragmented Memory (HFM), containing an abstracted model of the world, similar to how human memory is thought to work.



An example of our encoding process is processing faces. We encode the pictures of faces using the process above. Then we apply alternating layers of autoencoding and clustering to keep sorting those faces and encoding them by implicit features that could be eye color, hair style, hair color, nose shape, and other features (implicitly determined by the layers of autoencoding, and with bins for different classes of features overlapping) – to create a facial recognition system that just by looking at people, autoencodes their face and its features and can assign the associated name that was heard when they were introduced - to that person's face. Later when we meet a new person, the memory structure and autoencoders are already there to encode them quickly and compactly.

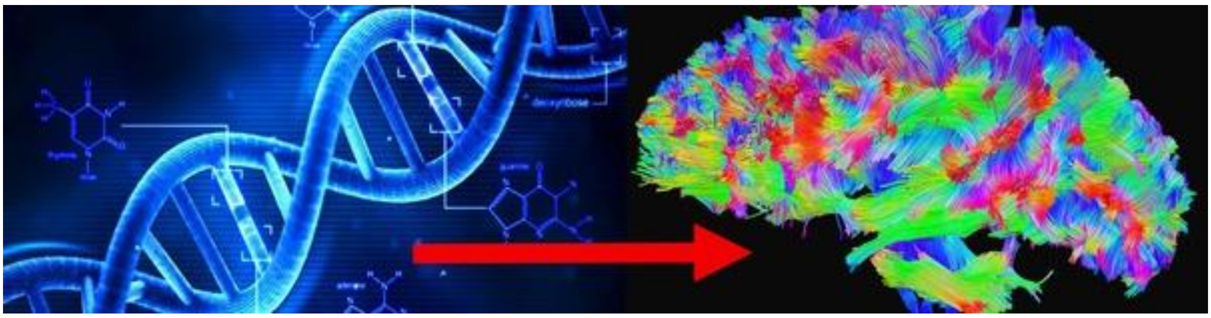
It also encodes language (spoken and written) along with the input information, turning language into a skeleton embedded in the HFM engrams, used to reference the data with, to mold it with, with the HFM give structure and meaning to the language.

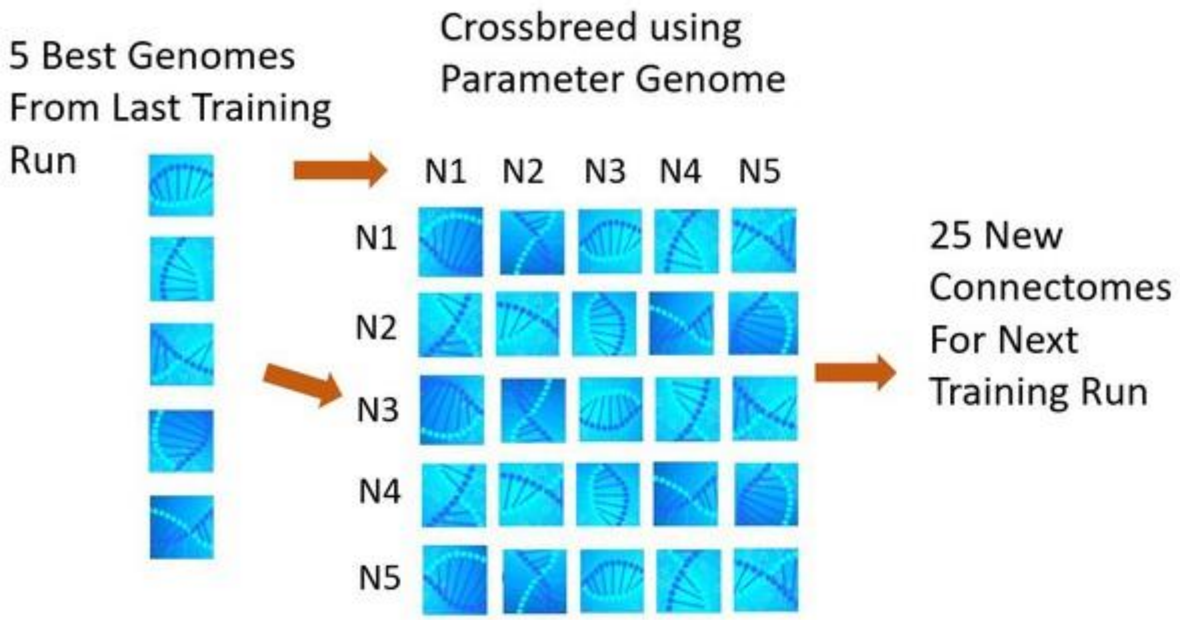


When our AI wants to reconstruct a memory (or create a prediction), it works from the bottom up, using language or other keys to select the elements it wants to propagate upwards, re-creating scenes, events, and people, or creating imagined events and people from the fragments by controlling how it traverses upwards. It is this foundation that all of the rest of our design is based on, as once we can re-create past events and imagine new events, we have the ability to predict the future, and plan possible scenarios, doing cognition and problem solving.

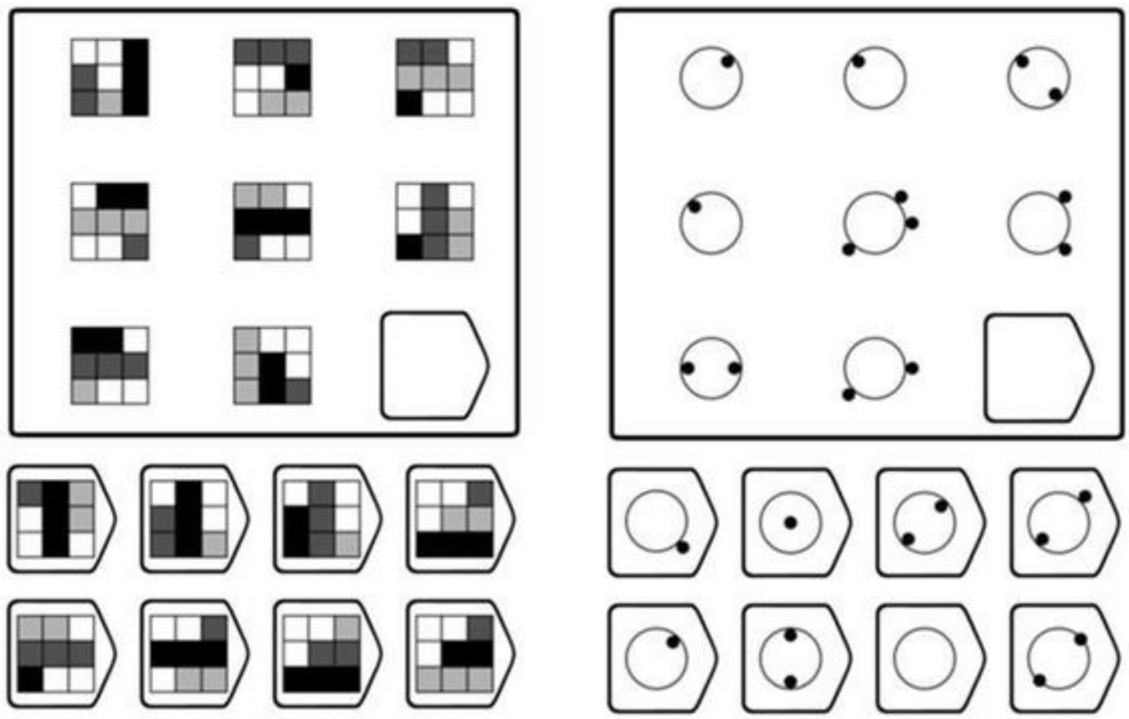
We may be able to build a very simple brain that demonstrates these principles, but to scale, we need Charles Darwin - evolutionary genetic algorithms. Basically we define every neuron, synapse, and neural network parameter and how they are organized into layers and cortices and brains - by a genome.

The human brain is represented by only 8000 genes, and decoded by the growth process during fetal developing. We will do the same, because we can't run genetic algorithms directly on 100 billion neurons, but we can do so on a few thousand genes to run genetic algorithms on much more efficiently, then expand the cross-bred genes to 100 billion neuron brains.

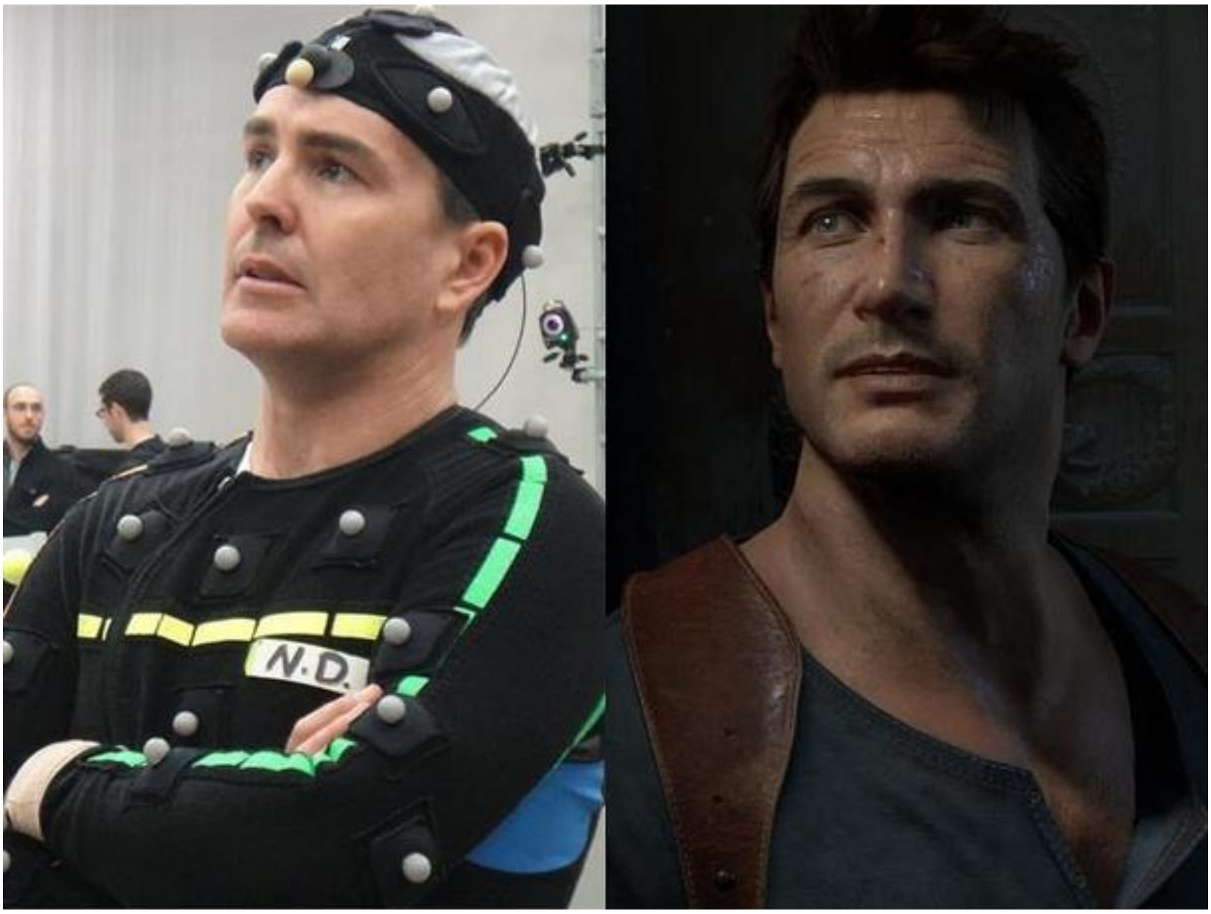




So as we breed generations of ever more sophisticated artificial brains, with more efficient neural networks specialized for specific purposes, we want to steer it into being human-like, or at least able to act and think like a human. For one, we could apply the same cognitive tests we do for children, starting from age 5 and up, to develop them like a human child. Seems logical.



Then, as the AGI starts to grow up - we can pull a trick from the film VFX animation community - do a motion/performance capture of a person, recording their motion, facial expressions and speech, as they go through everyday routines, then setting our artificial brain to train on that dataset, and keep selecting the ones that perform best every generation till we get a human mimic. It will not be AGI, nor human-level intelligence, but it is the best we can do till we make these things have to think more.



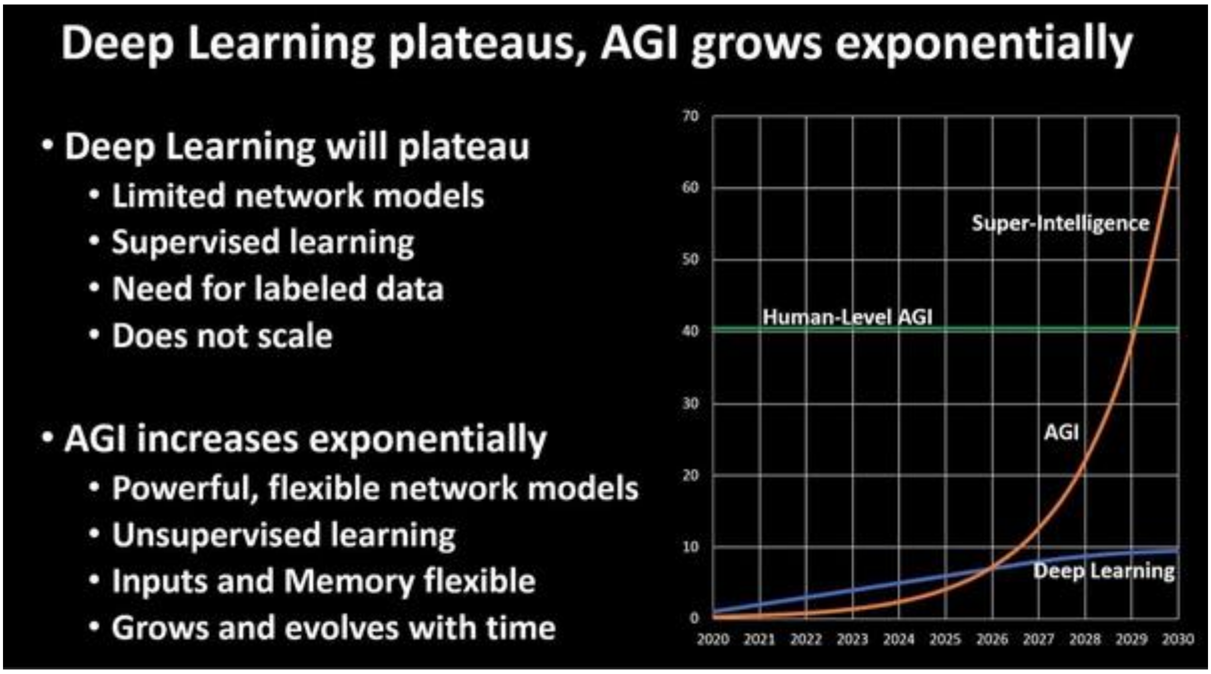
To take that all the way to AGI, I would create multiple such AI mimics and put them to work in different professions, writing some specialty code, and evolving specific AIs for each profession, so they have a broad but shallow layer of being conversation bots, but deep skills in their profession.

Now if we have a network of hundreds of different professions, serving millions of clients at once, all with the same brain architecture, with common language and interaction capabilities, how do me make an AGI. Maybe we just network them and that becomes an AGI?

At the very least, we have a framework and input and output on which to train and evolve an AGI, so that all the specialty skills of each vocation are assumed by a more generalized AGI brain, and in the process, that AGI brain becomes better at all the skills humans excel at.

Here is the diagram we started with. Deep neural nets don't scale past a certain point because no matter how many more layers of neurons we add, no matter how much labelled data we train with, and no matter how much compute we throw at the problem, the underlying network model is too crude, too approximate, and gains no further cognitive or problem solving capability with these increases with time. It plateaus for simple problems and is incapable of solving more complex problems.

In our AGI design, we have mapped a very powerful, general purpose, analog spiking neural network computer on top of powerful NVIDIA GPU digital computers, and that flexible design not only scales with compute power, but also scales as those neural networks evolve faster and faster to become larger, broader, and more functional and efficient with time, giving an overall exponential increase in capability greater than the Moore's law increase in the underlying processor power.



From there, we just keep going till we have a superintelligence, and beyond.

To see more: ORBAI Artificial General Intelligence Roadmap

Boyan Dob
Working with computers for 30+ Y. Consciousness is my love.

Faster and faster computers, with more and more sophisticated alghoritms, can solve many tasks which humans just couldn't and cannot.

But no matter how fast a computer will work, and no matter how well it will be programmed, that still means nothing in regard of computers being self-conscious. Consciousness won't just magically appear due to fast data processing.

I will claim that without consciousness there cannot be true intelligence, nor imagination, nor creativity. Nor can there be true feelings and emotions which are main drivers (to survive, evolve and prosper) for any living being.

So, the real question is how to make computers conscious, if we want to bring humanity to new better era.

My opinion is, first, that primordial consciousness is fundamental & universal, and second, that special part in center of our brains, called claustrum, can tap into it and make whole brains a conscious biological machine.

That's what I would recommend to study to those who are seriously in this field.

I am aware I might be shooting in the dark, but so far it seems everyone is shooting in the dark in attempt to program consciousness into computers & robots, despite that billions of dollars are being put into this field of research.

It's clear that whoever (government, company or even individual) achieves this it will make them incredibly powerful and rich.

dd Comment

Brad Cardin
Entrepreneur (2008-present)
Answered November 17, 2018

AI is considered a hype due to

1. A lot of people do not understand the technicality behind most of the innovation and almost fall for any news published.
2. AI's potential is immense. Its a revolutionary technology that covers almost every mainstream industry we know, be it automation or forecast, be it diagnosis or maintenance, AI is capable of doing low skill to most complex tasks.

Although, I don't term it as hype. Most of what we aim to achieve is practically possible, its just a matter of time AI will be a part of our routine life.

Is artificial intelligence overhyped technology?

How does artificial intelligence affect human life?

How much of AI is hype vs. substance?

Rayed Ali
Engineering Computer Science & Artificial Neural Networks (2019)

Not at all AI could be the solution to human beings most complex problems, besides AI can and is changing the way technology influences our day to day life. AI that we see today is in it's infancy state with evolving concepts in microbiology, genetics, predictive analysis, data science there's a whole new universe awaiting to be explored.

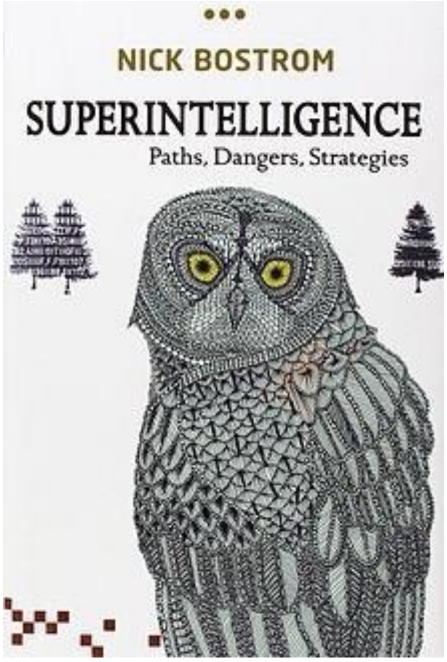
AI could change the way we are born, live and die. With artificial neural networks there's chance we can someday be able to reside our memory and consciousness in a small computer, maybe a way to achieve immortality. Everything that we consider science fiction could well be possible in near future. One such example is gene editing with the help of CRISPR technique, which could eliminate hereditary mutations in chromosomes and even add disease resistant genes to new offsprings.

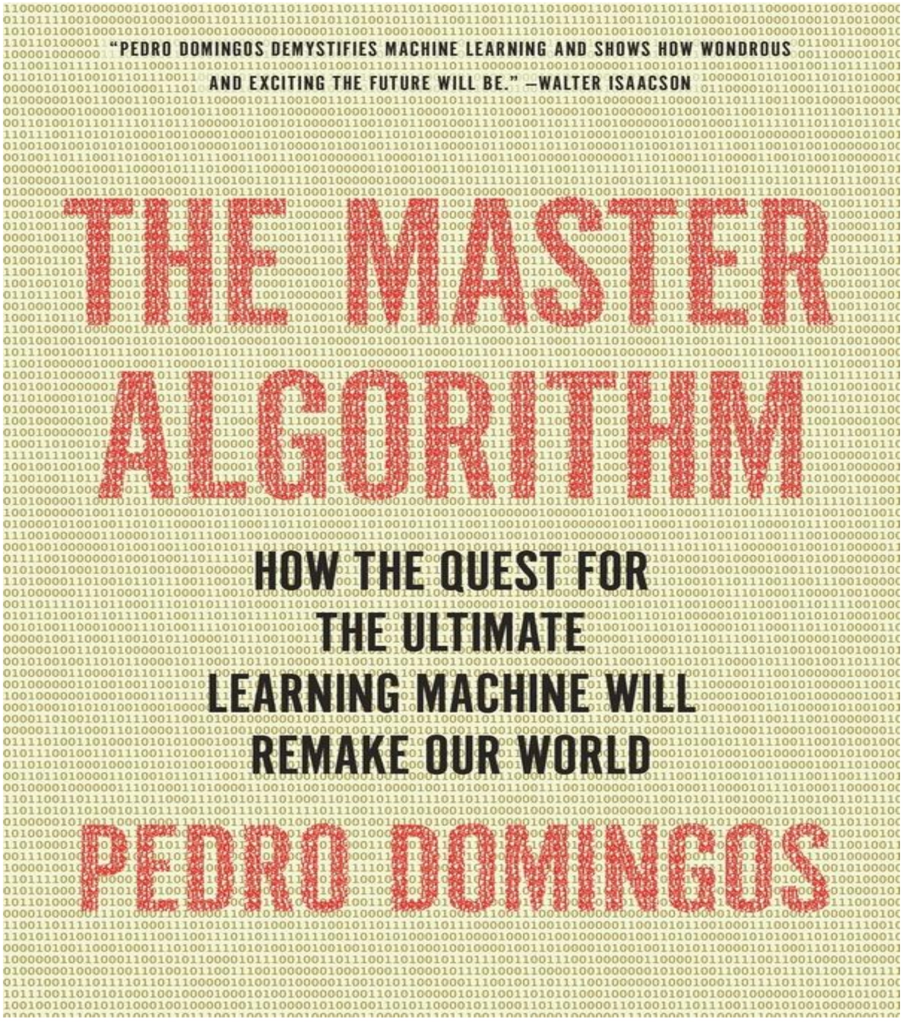
AI was recently used to conclude the Bose Einstein condensate experiment and surprisingly the algorithm with AI's Intellect was 10 times faster as compared to human scientist which shows that the concept of AI is set to achieve infinite possibilities in physics and cosmology.

In short imagine if a computer could think and solve what surpasses a human brain's level we can literally recreate a Big Bang.

Da Zheng
works at Self-Employment

Hi, I think it’s the promised technology in the future, in fact the technical name is called “deep learning” or “machine learning”. Both media and tech company are promoting it like crazy, that is why people think it is so popular, but may be a little bit exaggerated. If you want to know more about it, you can read 2 books called “Master algorithm” and “super intelligence”.





P0001
former Trader
Answered February 13, 2020

AI is hype...lol rekt

Josh Greig
studied Computer Science

AI is definitely over-hyped. Don’t buy into it or fall for it.

AI is the cure-all tonic of the 21st century. It solves everything or could kill everything at least that’s what science fiction would lead you to believe. Like the cure-all tonics of the early 20th century, AI won’t solve every problem or come close any time soon.

AI is becoming such a subjective, hyped, overused, and meaningless term that it is clearer to use the word “software”.

Computers have been getting faster, more connected, smaller, and in more places over the last few decades. Software is moving with them and solving new problems. This is the morsel of truth that gets twisted to attribute an unrealistically extreme anticipated change to AI.

Many wish software was able to solve more problems, better, and faster than they actually can. Elon Musk is quite brilliant but overestimates the speed and quality of software Tesla can produce for autonomous driving. Tesla has frequent delays and fatal car accidents related to its Autopilot technology as a result of this wishful thinking and rushed deployment.

The hype pushes advertisers to use “AI” whenever anything software-related is used to solve a problem now. This causes people to pay extra for things that are less innovative and useful than they’re sold to be. A good example of this is The Grid.

See the original pitch at:

If you don’t want to watch, essentially “The Grid” is supposedly a website that uses AI to fully automate a web designer’s job more completely and better than any website builder. The Grid will help you manage content while it manages all design aspects better than you, a non-designer, non-programmer could.

This reviewer explains the disappointing reality:

These articles are great further reading on the misuse of the AI term to sell:

- Beware of Geeks Bearing AI Gifts
- 3 Reasons AI Is Way Overhyped

The hype for AI is the same hype I’ve seen for decades and appears to largely come from science fiction, advertising, and wishful thinking. AI programming concepts are an interesting way to solve software problems but they’re not new and won’t solve as much or as well as most want.

Nathan Ketsdever
Facinated by science, discovery, & innovation.

They are, by my estimation, the opposite of hype in terms of the endurance: Artificial intelligence, algorithms, and big data promise to be with us for the rest of existence.

All of the technology company have created an algoritm or use an algoritm to make their company work. Billions and billions and billions of dollars are in algoritms. The number is probably the size of the tech sector—maybe the whole of Western economies.

Let’s be clear, early experiments in A.I. in a given sector or context, like any new product or technology will experience cycles of hiccups until they are calibrated and perfected.

FYI: I would say otherwise, you might have to define hype vs. success to help provide any deeper level of specificity, context, or evidence to support a given thesis on this question.

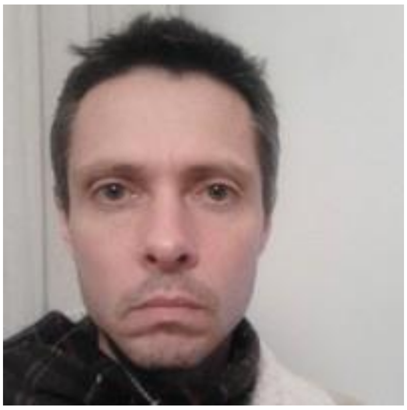
Update:

Perhaps you could argue that A.I. at one time was hype to some extent or was in a Gartner hype cycle, but I think it’s beyond that now, given how many of our modern day apps are fundamentally reliant on A.I. and algorisms:

Hype cycle - Wikipedia

The hype cycle is a branded graphical presentation developed and used by the American research, advisory and information technology firm Gartner to represent the maturity, adoption, and social application of specific technologies . The hype cycle claims to provide a graphical and conceptual presentation of the maturity of emerging technologies through five phases. The Gartner hype cycle has been criticised for a lack of evidence that it holds, and for not matching well with technological uptake in practice. Five phases [edit] General hype cycle for technology Each hype cycle drills down into the five key phases of a technology's life cycle. No. Phase Description 1 Technology Trigger A potential technology breakthrough kicks things off. Early proof-of-concept stories and media interest trigger significant publicity. Often no usable products exist and commercial viability is unproven. 2 Peak of Inflated Expectations Early publicity produces a number of success stories—often accompanied by scores of failures. Some companies take action; most don't. 3 Trough of Disillusionment Interest wanes as experiments and implementations fail to deliver. Producers of the technology shake out or fail. Investment continues only if the surviving providers improve their products to the satisfaction of early adopters. 4 Slope of Enlightenment More instances of how the technology can benefit the enterprise start to crystallize and become more widely understood. Second- and third-generation products appear from technology providers. More enterprises fund pilots; conservative companies remain cautious. 5 Plateau of Productivity Mainstream adoption starts to take off. Criteria for assessing provider viability are more clearly defined. The technology's broad market applicability and relevance are clearly paying off. If the technology has more than a niche market then it will continue to grow. [1] The term "hype cycle" and each of the associated phases are now used more broadly in the marketing of new technologies. Hype in new media [edit] Hype (in the more general media sense of the term "hype" [2]) plays a large part in the adoption of new media . Analyses of the Internet in the 1990s featured large amounts of hype, [3] [4] [5] and that created "debunking" responses. [2] A longer-term historical perspective on such cycles can be found in the research of the economist Carlota Perez . [6] Desmond Roger Laurence, in the field of clinical pharmacology , described a similar process in drug development in the seventies. [citation needed] Criticisms [edit] There have been numerous criticisms [7] [8] [9] [10] of the hype cycle, prominent among which are that it is not a cycle, that the outcome does not depend on the nature of the technology itself, that it is not scientific in nature, and that it does not reflect changes over time in the speed at which technology develops. Another is that it is limited in its application, as it prioritizes economic considerations in dec

https://en.wikipedia.org/wiki/Hype_cycle



Gavin Rens
Doctorate in Computer Science specializing in Knowledge Rep. & Reasoning.
Answered November 16, 2018

AI is hyped so much because of how large the influence could be to people in the next few year, that is, AI will have a real impact on most people alive now in their life time.

Some people will lose their jobs, some people's jobs will change a lot, some people will have their lives extended by AI tech, some people will become poor(er) and others rich(er).

AI will change what we know, and how we interface with information. It will create and is creating new entertainment genres and military weapons and way to deceive and new ways to stay safe. Et cetera, et cetera.

Most people (even AI specialists) have only woken up to this fact in the last three to five years, due to impressive results mentioned in the media.

Akhil Reddy
Business Development Associate at Skill Analytica (2018-present)

Artificial intelligence or AI is nothing but the science of computers and machines developing intelligence like humans. In this technology, the machines are able to do some of the simples to complex stuff that humans need to do on a regular basis. As the AI systems are used on a day to day basis in our daily life, it is not wrong to say that our lives have also become advanced with the use of this technology.

The AI systems are efficient enough to reduce human efforts in various areas. In order to perform various activities in the industry, many of them are using artificial intelligence to create machine slaves that perform various activities on a regular basis. The artificial intelligence applications help to get the work done faster and with accurate results. Error-free and efficient worlds are the main motives behind artificial intelligence. In recent years, many sectors have started using AI technology to reduce human efforts, and also to get efficient and faster results.

Artificial Intelligence plays a very important role in not just the development of business and processes but also the humans to the next level. With the rapid growth in technology and development, we can expect a lot more exciting features and uses of AI in the future.

Jesse Pollard
programmer/analyst/administrator from way back

What makes you think it is a hype?

Yes, some companies WILL exaggerate their results (hence all the face recognition failures), but it does work - when given ideal data. Given partial data/incomplete data/ inaccurate data … and it isn’t as reliable even if it is reported as correctly working.

It works quite well in the fields it is aimed at. It sucks big time when you get outside those fields until new approaches and retraining of the AI (depending on type) is done.
Add Comment

Steph Groom
former Structural Engineer and Project Manager (1980-2010)

Why is artificial intelligence so popular?

Artificial Intelligence or AI is one of the newest Sciences, that is constantly moving forward at very fast development pace. Despite of some researchers’ say that AI is a threat to humanity (which human controlled it is not), a large number of people believe that AI may positively change the future of the world and ease mankind’s life routines. In the late 20th century, when the main studies on AI began, no one would think of a quick jump it would make in a few decades. AI-powered tools now help to scale the efforts of sales teams by gathering useful patterns from data, finding successful courses of action, and addressing customer needs and grievances.

The general benefit of artificial intelligence is that it replicates decisions and actions of humans without human shortcomings, such as fatigue, injuries, emotion and limited attention time. There are several examples and applications of artificial intelligence in use today: voice-controlled individual partners, robots, behavioral calculations, suggestive searches, autonomously-powered self-driving vehicles, virtual assistants, etcetera.

The following short list of uses of AI that exemplifies its growing popularity:

1. **AI-Powered CRM Suites**

Like no other human resource AI suites may replace Customer Relations Management block, which includes activities like answering calls, filtering them, sorting, calculating the satisfactory analysis and so on. Of course, this kind of labor automation have both advantages and disadvantages of its own, but this is another large topic of discussion.

2. **Gaming Intelligence**

AI plays a crucial role in strategic games such as chess, poker, tic-tac-toe and much more, where machine can consider a huge number of conceivable positions based on artificial intelligence applied on it.

3. **Vision Systems**

These systems understand, interpret, and comprehend visual input on the computer, e.g. a spying aerial vehicle (drone) takes photographs, which are used to figure out spatial information or map of the areas; face detectors used by police which recognize face of the criminal and much more.

4. **Speech Recognition**

Many intelligent systems are capable of hearing and comprehending the language in terms of sentences and their meanings while a human talks to it. It can handle different accents, slang words, noise in the background, human speech variations, etc. Such AI systems are Apple’s Siri, Google Assistant, Amazon Alexa, Microsoft Cortana, SoundHound, Bixby, VIV and still others to come.

5. **Handwriting Recognition**

This is a computer software designed to receive and interpret intelligible handwritten input from sources such as paper documents, photographs, touch-screens and other devices. It can recognize the shapes of the letters and convert them into an editable text.

6. **Intelligent Robots**

Robots can play out the tasks given by a human. They have sensors to recognize physical information from reality, e.g. light, warm, temperature, movement, sound, knock, and pressure. They have productive processors, various sensors and tremendous memory to show insight. Also, they are capable of learning from their mistakes and can adjust to the new environment.

Source

1. https://medium.com/@sarah.dukes/why-is-artificial-intelligence-becoming-so-popular-33d12c35a232

Add Comment

Suvajit Majumder
studied Google IT Support Professional Certificate (2020)
Artificial Intelligence Hype Is Real

Christopher Albertson
lived in Los Angeles
Answered April 23, 2020

It is something created by people who don't work in the field of AI and imagine lathe things it might do one day. And then others believe it and it feeds back on itself.

John Sanders
Principle Scientist Marconi - AI and computing (MMARL) in 1980s

It's a hype because it creates high levels of expectation without a hope of delivery.

Hyperbole is a really a figure of speech , and so not quite appropriate, but in recent times the word has evolved particularly in the worlds of fashion, media sales etc. In essence its exaggerated as in making great claims for.... and usually abbreviated to hype. The claims of AI as a new advance in computing is hype. Most of the computer AI products do not have any level of intelligence, but may have specific uses and are classified as computer software Machine "learning" being a good example.

Related Questions

Is artificial intelligence overhyped technology?

How does artificial intelligence affect human life?

How much of AI is hype vs. substance?

Should artificial intelligence have its own rights?

What is artificial intelligence? How is it made? What is the process of it?

What impact would an AI have on our society?

What are the advantages and disadvantages of having A.I.?

What's your opinion about the future of AI?

What are major ethical concerns about the use of AI?

Is artificial intelligence a smart idea?

What is hype and what is real in the artificial intelligence world?

How far have we come with AI?

What are the applications of AI?

How far is artificial intelligence in comparison to human intelligence?

What things do I need to develop an artificial intelligence?