

REVIEW ON ARTIFICIAL INTELLIGENCE, AUTOMATION, INTERNET OF THINGS

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Abstract-- Artificial intelligence (AI) is an area of computer science that emphasizes on the creation of intelligent machines that work and react like humans. Some of the activities computers with artificial intelligence are designed for include: Speech recognition, Learning, Planning, Problem solving beyond the bound of possibilities we are here with ai, this is what we are talking about. The near future is here. Technology; hell yeah! Now actually we are learning how to use that, how? Let's take a look-thinking to store some kind of data, but don't want any kind of overhead of carrying and capacity? Let's use our self then! Yes, its right. From a latest research from unknown resources merely Harvard we'll now be able to store the data in human dna. What we can do with a gram of dna here we go : we can store approx.. 700TB of data , that's 14k 50GB of bluray-disks. IF you want to store same amount of data on a hard disk what it takes is 151 kilos of weight or else 233 3 tb disks, that's kind of difficult to handle , so what else be the solution , DNA or noting.

Key Words: AI, Soft Computing, IoT

I. INTRODUCTION

than we think of it. You may even be able to make it wrong sometimes, don't worry, we have something for you. Making decision is sometimes far more difficult a task or to suggest when there exist uncertain outcomes then we are there with: what if i talk about an example that's already been discussed or given upon by some specialist present over there in mit , yes you heard it right , there is a person with his team made one of a kind dss, which determine the best courses of action when both current as well as future consequences are uncertain. About the other

applications where it can be used as such , are : robotics , epidemiology, operations management , resource management , manufacturing and many



Fig. 1. Information Theory

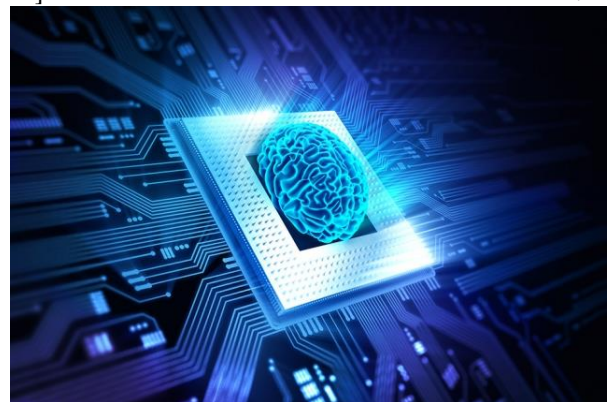


Fig. 2 Embedded World

Thinking and decisions are difficult to carry more [1-10] Now we come with some futuristic technology, some of which are here, and others will be there as the automations grows up: neural

networking: the inventor of the first neuro computer, dr. Robert hecht-nielsen [11-20], defines a neural network as – "...a computing system made up of a number of simple, highly interconnected processing elements, which process information by their dynamic state response to external inputs."

It further can be used as automated or self – power generating, decision and action taking devices or instruments such as phones, which upon user response or self analysis make the design like changing the color of phone to show user's mood, or make action inside phone if given some kind of indirect response to the device, when it is not open or indirectly or either can be used in cars to synchronously make the driving task easier and, manipulate the internal settings of car like stereo or ac temp as such if some kind of neural chips are there inside the device these are some of the applications of neural networks which can be used as such in the future if there requirement persists.

Another concept is of my eye:

Which will be like an artificial eye for a blind person or either some kind of contact lens for the perceptive. Which will be like showing the real world as well as shows what one actually wants to see such as movies , or stuff which cant be seen over a single place by the normal human eye , will also show your medical as well as other important reports or notifications as such, but this is my thought but what i think is like it will take lots of time to accomplish such things in the near mature such thin chios are difficult as well as dangerous for the human as well so it is awesome as well as lots of advancement is required in field of ai. Wifi traffic: is also another awesome idea. Which will be able to track the traffic as well as able to tell the alternative route to the driver. From the kharar junction i got this idea of doing it like this only, everyone in this real world got multimedia phones which contain wifi. If their exist a long range wifi and evryone is connected to a single wifi then we be able to do it, through intranet we can evaluate the density of maximum user at a given place as well as place which contain least user will be given up by the system. This can be used as such in other countries in grocery markets to do the density evaluation so that they be able to provide best service to that part which contain highest density and will improve other parts so that they can make more profit out of it [20-30].

INTELLIGENT ICU:

Medical science is an important aspect if we talk about surviving , living , so there is definitely a huge space in development in this field, this problem i got when my father is dealing with patient of some emergency and he got to make a decision which can possibility a tuning point for patient as well as doc , so the best out of all to be chosen is what everyone is expecting so , it would be rather possible to design such intelligent icu's which will out of best output or results in same condition will be chosen a good decision maker is what here we can use. And another aspect is for the services which can be further improve using this in any hospitals. "medical science will only lead you to see the near future but nothing else."

Compiler, interpreter language convertor:

As computer science engg. Student what i feel as such difficult is to use different programming languages fro same problem or why not to use my best language in that case to solve problem. So there comes an idea of compiler, interpreter that is itself language independent and due to which we can write once in any language and compile it to smother language if needed [31-32].

Smart clothes:

Not a very new thing in this evolution of ai but we gotta some impressive stuff here also like, changing of internal comfort as well as temperature of clothes , with respect to the one who is wearing that clothes , this idea comes up as, me as a hosteller hates washing clothes why not to wear such clothes that will be same for winter and summer as well changes its texture as well as design as human needs .

Will you charge my phone in my pocket only while i was walking?

Yes, you heard it right, we wear some shoes that contains piezoelectric substances, which on displacement produces some kind of electricity which if balanced can be used as a source to charge the devices, further applications can also be possible like we are up with bullocks to use the same and electricity is like not going to waste that much easily. So, the source as such is needed very desperately as well as will make me realize am roaming here there to save some money.

Accident analyzer:

Can't deny the fact that india as a whole causes highest number of road accidents in the world. About

the stats if we talk then it goes like this only, about 1 per 14 hour , which was actually recorded in 2009 , and per year this stats goes like 135,000 mark, and this stat is given upon by national crime records bureau.

Now what else we can do for that, as we got up with so much accident experiences that can be either used to save someone else, that we are unable that time, what we can do is through the same traffic analyzer inform the traffic to the driver or can tell the driver the speed limit or other precautionary measures needed to save their lives as such. As most of the roads we got here in India unlike some metrocities have no signboards, lights, and other stuff that is required for the driver, or by this approach we can make a semi driver-less car that will take the necessary steps even when there is a requirement of some kind of fast decision making. And on the road, itself can use things like forward path viewer to see the path before taking overtakes. But else problems like street racing and drink n drive, this is nothing to do with the technology its better to change the mentality .now we here up with some impressive product by google:

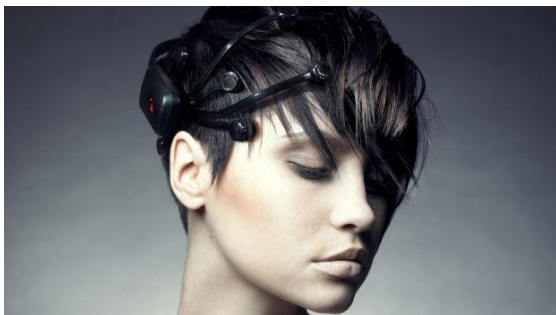


Fig.3. Mind Readers

Mind readers: these look alike headsets sense the electrical activity inside a person's brain using so called technique ,i.e., electroencephalography[egg]. So how does it works, there we go : electrodes you can see over from the figure are placed on the surface of someone's head ; which can measure the electrical signals produced by the brain 's neuron through the scalp or hair roots . It has been using as a diagnostic tool for more than half a century. Neurologist what they do is they identify the patterns in the patient's brain wave activity, allowing them to spot some kind of abnormalities that could give rise to neurological disorders. What i am doing with the help of this papers is , just enlightening the darker phase of such technologies , but nothing else.

Commercial eeg headsets are more like gimmicks brain patterns can be used to control video game avatars eeg holds promise for controlling devices likelier future than eeg-controlled cars are headbands that may aid people with disabilities best basic hacking techniques nowadays which are used by the hackers to access your content or device hacking is not as simple as it looks , it is the thinking of person which can either think of other persons or victim thinking as well as smart enough to fool anyone easily, like in free iphone x will be ther just after clicking on a specified link, can easily give your system access to hacker. Key logger reason behind the hack done last year by a senior in our university management system. Reason why banks provides virtual keyboards for banking online.

Denial of service (dos\ddos)

Overloading the server with fake requests , so as to keep the server busy and while other brands or sites can make profit out of it, as site become slow unsafe now no one want to use that.

For ddos attacks, hackers often deploy botnets or zombie computers which have got the only work to flood your system with request packets.

Waterhole attacks

In this case, the hacker hits the most accessible physical point of the victim.

For example, if the source of a river is poisoned, it will hit the marine life as well as humans after sometime. In the same way, hackers target the most accessed physical location to attack the victim. That point could be a coffee shop, a cafeteria etc [9].

Fake wap

If you get connected to any fake wireless access point as such you be then sharing info . To malicious attackers. Which obtain such things to gain access and for fun or profit use that info.

Eavesdropping (passive attacks)

Unlike other attacks which are active in nature, using a passive attack, a hacker just monitors the computer systems and networks to gain some unwanted information. this is used against tech giants to rob them out so there exist , cyber security team who do constant monitoring as such to avoid such probs.

The motive behind eavesdropping is not to harm the system but to get some information without being identified.

Phishing

Phishing is a hacking technique using which a hacker replicates the most-accessed sites and traps the victim by sending that spoofed link.

Virus, Trojan etc.

Virus or trojans are malicious software programs which get installed into the victim's system and keeps sending the victims data to the hacker.

Click jacking attacks

In this technique sometimes it is difficult to identify the real link, like in songs.pk site its like very difficult to download song while clicking on a link in single chance, after a wrong click you will be moved under control to some other person. and device will either be malfunctioned or so.

Cookie theft is also there in the list.

Best programming languages with their uses:

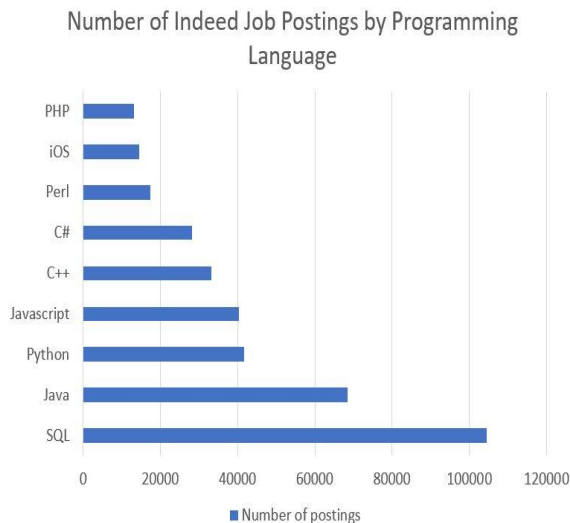


Fig. 4. Comparison

Java: general purpose; used especially for android (phones and tablets), websites created by corporations, and sometimes embedded systems (like the chip that runs your washing machine) or desktop software. According to many polls, it's the most popular programming language.

C++: general purpose: rarely used for websites unless they are very high-volume and highly optimized; the language of choice for 3d games; very good at allowing you to efficiently manage memory and good for anything requiring smooth real-time execution. Also used a lot for desktop programs in general, for creating operating systems and anything where you have to interact with hardware at a "low level" [10].

C: c++ was built on c, so there is a lot of overlap between the two. It's extremely fast and is the language of choice for writing operating systems, device drivers and other programming languages, and for programming embedded systems. C++ can be used for these things too, but c lets you squeeze out just a little bit more performance.

Python: general purpose. Slow compared to the first three, but very good for creating websites and dealing with data. You can often put together a python program more quickly than you can with c, c++ or java, but it's not used so much for commercial software that's distributed to end users.

Perl: before we had python, we had perl. It's still popular, and is great for munging large numbers of text files, producing reports or automating some kinds of system administration. Also, good for websites. Probably a bit faster than python, but harder to read.

Ruby: a bit similar to python and perl, sort of. Often used to create websites, but not quite as popular as php and java for that purpose. This is the only language on this list that i've barely used myself, but it has some serious fans out there, so it must be good.

C#: this is a language devised by microsoft; it's like an improved version of java and is now available on lots of non-microsoft systems, but it can't quite fully get rid of the microsoft association. Very good for creating windows desktop programs, since microsoft c# includes a really nice visual designer. Also used to create websites with asp, i believe. I hope it continues to spread its wings, because it's a great language.

Html/css: this isn't really a programming language, but is used to create web pages. Languages like python that can be used to create the "back end" of websites -- the bit that interacts with a database -- ultimately work by sending html to a browser. Html provides the structure of a web page, and css styles and re-arranges the basic structure.

Javascript: originally this was intended just to add in-browser functionality to web pages. For example, it can enable a web page to tell you immediately if you've typed something invalid in a form. Things like gmail are very heavily based on javascript; you can use it to basically write a whole application that runs in a web browser. Now the usage of javascript is spreading, and people are starting to devise ways of using it as a more general-purpose programming language.

Php: this is used exclusively to add functionality to html. Often, it's actually mixed with html, and allows you to retrieve data and generate html in useful ways before it's sent to a user's browser to be displayed. When it comes to connecting a website to a database, php is probably the most popular technology in use, especially for home users. Facebook uses it, for instance.

Sql: this is a language that is specifically used to work with databases, creating database tables, retrieving or adding data, performing queries and so on.

C language - is this the need of future? Do i really need to learn it? Then there you go:

Below given are the fields where it cannot be replaced by other languages such as java and python:

Microsoft windows

Importance of c as a whole is much if we talk about kernel development, which is actually done using c , in Microsoft as well, with some other parts with assembly language as well, reason behind is being a very close language to the hardware , which in turn provides various such applications. about 90 percent of kernel development was done using c, for decades.

Linux

Linux alike windows is a very strong os , and its kernel is also written in c and some parts with assembly. About 97% of world's 500 most powerful supercomputers run linux kernel , and also it's one of the most used os in personal computers , also some versions of linux like kali are used as such in some kind of hacking tech. Not only laptops desktops the importance of c is same as in mobile and other devices also have a look at it:

3d movies

What we love is reality , clarity in life, and if we talk about the 3d movies eye max, then it is also an

applications of c language. This kind of applications need to be very fast , since they handle huge data and do many calculations per second. So needed a language of a kind , then here it comes with c [11].

Embedded systems

Now the systems or real life applications for a better understanding of this : mentioning below all of the applications or components which are either designed in c or uses c as a whole for there working.

When you get into your car. If it has the following features, then they are also programmed in c:

Automatic transmission tire pressure detection systems sensors (oxygen, temperature, oil level, etc.) Memory for seats and mirror settings. Dashboard display anti-lock brakes automatic stability control cruise control climate control child-proof locks keyless entry heated seats airbag control

II. CONCLUSION

Drawbacks beside every other are - it might cause unemployment which no body wants, of course computers are far better than humans sometimes. They are fast they are specially designed they don't actually want anything once designed accept little bit of maintenance and inputs unlike humans. They is no irregularities or money factor. Once invested can be used as such.

Also there exists some strong potential risks that automation will ultimately subjugate or overpower rather than serve humankind. The risks include possibility that workers will become slaves to machines, that the privacy humans will be definitely invaded by this, and this will definitely endangered civilization , and then only the human itself will be responsible for this slavery but no one else.

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