Artificial Intelligence

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Abstract:

Artificial Intelligence (AI) is making machine to work on human instructions automatically. The concept of AI can have variety of definitions and meanings according to its user. AI in now a days is a platform for all types of activities, such as Business, Education, Healthcare, Manufacturing, Entertainment, Media, etc. etc.

Artificial Intelligence is a process of making machine to work on human instructions. The process starts from basically choosing a thing to designing a code means a set of instructions to make that thing to work on those instructions.

In my words AI is a simple process, for example just imagine a piece of chalk can write automatically on the black board whatever I dictate while taking the class. A nice imagination for each teacher that he may have that type of chalk piece which operates automatically on the board.

Keywords: AI, Machine Learning, Deep Learning, Neural Network, Algorithm, Python, Sensors. Chipset, Cyber Security, etc.

Biography: (50-100 Words)

Artificial Intelligence – terminology is old but the technologies are ever changing new trends.

Among the five generations of Computer fifth generation involves the innovations of modern technology such as e-commerce, m-commerce, client-server technologies, connectivity to society & people using internet and web tools, etc.

o e-commerce is a technology for business to do the transactions using Internet and web technologies.
o m-commerce – is a advanced technology of e-commerce which is customized for mobile features.
o The concept of client-server technology is the communication between the computers of organization and customer to exchange the data and information. The organization system is termed as server and the customer system is a client. The client sends a request to the server system and the server gives response ti it.
o Connectivity to society and people is the concept of social media networking sites such as twitter, Facebook, Instagram, WhatsApp, etc. which builds the connectivity between the people of the society.

As we know the Fifth generation of computers is itself named as Artificial Intelligence generation. The advanced mechanism of AI has got many innovations such as self driving cars, face detection method, voice recognition methods, diseases detecting machines, robot machines, AI integrated Televisions, AI Assistant, etc

Technology with AIThe concept of AI has three technical aspects associated with it. They are

➢ **Machine Learning**

Machine Learning this is a part of AI defined as the capacity of a machine to imitate intelligent human behavior. Here the design of the machine or device say chalk is created with all its basic features, ML is also use to design and select the algorithms for the coding.

➢ **Deep Learning**

It's a method which tells the computer system to process the data according to the human brain i.e. makes the system to work along with human interactions and instructions.

➢ **Neural Networks**

It is the network area for communication in AI. The network which is similar to our neurons of the brain. It builds the communication between the man and machine in AI.

The hardware components associated with AI are,

➢ **Sensors**

These are the devices that are used as detectors in AI. These sensors will sense the signals and process according to it. Some of the sensors such as

Voice sensors to recognize the voice of the user and work according to it.

Toch pads which sense the physical touch of the user such as thumb impressions

Face detection tools which detect through scanner

➢ **Chips**

The heart of AI to store instructions To Store the instructions/fetch them/access them, combine all devices and check for its working.

➢ **Machine**

The device which associated with AI, the device which is operated on instructions, works with technology.

The phases of AI can be defined as design & develop, coding and debugging, execution.

1. Design and development phase involves the main basic step of AI is algorithms. To study the given concept and design an algorithm so that that concept can be brought to execute.
2. Coding is a phase where the algorithm is converted to code using some standard programming language such as Python.

   Python is a software which is very popularly used in AI, which is farwarded versions of C and C++ and java languages.
3. After coding that has to be tested for its working and execution before launching that is the process of debugging and execution.

With the reference of the contents as I mentioned above let's design & develop an automated chalk that means AI controlled chalk.

The word Artificial in AI means the man-made things which are not natural resources such as chair, table, pen, pencil, book, car, bike etc.

Intelligence refers to human brain application means making that artificial thing to work on his instructions.

Process:

A chalk is a writing tool for black board. Lets make an automated chalk which can sense the voice and work according to the instructions of the user/faculty who is using it.

Purpose: hand's free chalk to help teacher for writing on the black board

Requirements: a piece of chalk, a chip, voice sensor,

Software requirements: python – to code, algorithm, supporting OS, supportive utility software.

Take a piece of chalk and create an image of it using ML tool.

After digitally designing the image processing is done so that to check the availability of image for developing algorithms.

After the image processing and if its successful the next step is to develop an algorithm for the part that the chalk should work with the instructions.

Then convert that algo into program code and save the coding in the microchip.

Insert the chip into the chalk and test its execution.

Along with the chalk insert a voice recognition device to the chalk so that it can recognize the voice instructions and work on according to it.

Store the instructions to the chip through a cloud storage and execute the commands.

Outcome

An AI chalk which assists the faculty for hands free writing means the chalk will take the instructions by the faculty, process it and write the same on the board on its own.

Teacher will get a hand free writing tool to manage the timings and class.

Conclusions

The AI technology has a fast-growing technology which is taking over all field of our real life. AI is creating dependency of technology of people. To Store the instructions/fetch them/access them, combine all devices and check for its working.

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