Internet of Things (Future of Inventions on Artificial Intelligence)

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Abstract: The Inclination of world towards Internet of Things (IOT) is the future of each biotic and abiotic things in world. As the IOT will transform into enormous networks of connected devices transmitting data of their functioning with the help of internet, artificial intelligence & data sensor to transform them into intelligent virtual objects. The aim of IOT is to provide more comfortable & efficient life the consumer, by gathering operational behaviour of an object to track down its effect. In sneak peak of this, present study portrays the future opportunity of IOT concept by systematic research paper of scholar & the five popular IOT devices launched in world and their functioning.

Key words: Internet of Things (IOT), Sensor, AI, Virtual, Intelligent

I. INTRODUCTION:

The internet of things can be worlds one of the most profound IT invention. The IOT is a key part of future internet. As by merging all the physical object and transforming them into intelligent virtual objects by the help of technological advancement in IT sector. In order to monitor the object and to store the data in clouds in order to maintain the records of their performance. The monitoring and recording are done to take a corrective measure if something gets wrong. The two parameters of communication in IOT are: object to object, in which the cluster of devices parallelly communicate to check monitor on each and every aspect of product. The second way is object to person in which the object performs certain function in the absence or without the acknowledgment of person but this function with the help of AI and the command given by person to object. For an instance, a smart phone can opt any song of user preference and play but the songs are not in phone it is been used by a data stored in cloud with the service provider and using that data by giving a command and receiving the output from the source. There are three types of IOT are collecting and sending information, receiving and acting on information and undertaking both,

like the smart watches nowadays specially the Apple as an innovator the product has launched the watch to detect the human heart attacks and the sensor in the watch can detect the possibility of any circumstances and watch send the data to connected iPhone of user and portrays all the detected possibilities of it.

Literature Review:

The scope of the literature has aimed from every Nano to micro particle in world as the future potential and target for technical things. From this it comes to a conclusion the literature review has been written for technologies of IOT. As the capabilities of doing work by analysing the user commands and implementing it. The object which prior used by a constant monitoring by user has transformed its function from traditional to modern technical source, where the product is following the user command by a software based on AI and to produce the end result.[1]

The study depicts illustrative model of automatic control block design in the study, as a user always gets the final result from device but in IOT the devices will be connected to server (database) and that is controlled by sensor by acting as a bridge gap as what they want and who to fulfil it. The (Inshik Kang, Kwanghee Cho, Hoekyung Jung) authors clearly depicts that, the user gives a command that is been followed by sensor to the server and the mode of command can be smart phones or remote control which give an ease to user to give the command. This can be any of the device as in the smart homes from doors to lights to fan other multiple devices are inter connected in a network and just by giving a command from smart phones it is been analysed and then directly followed to produce the main product.[2]

The authors have displayed and explained the structure of automation control architecture as from the application to server the data transmits by remote control and the data transferred by regular monitoring the regular data device data is been analyzed and server forward the user query to device by home control device.[2] The authors talked about each technicality aspect of its function in the real-life model to give us an overall knowledge. The IOT is expanding its roots in diversifying its product range in health care products like the brands Apple, Fitbit, MI and many more is launching products in wearable IOT products in global market to help user to track the health issues by monitoring it by the help of Artificial intelligence. The user data is stored in cloud services & user can opt for it any time and track down and evaluate the data of a particular period. The products help to track heart related health issues, obesity and etc.

The user can get the target or a suggestion if it's any caution then refer you to meet doctor near you. If its problems like obesity the wearable devices set the target for you achieve each day in order maintain your health.

Apart from their price limitation to user still study shows they're opting it as they are investing in it as they belief in technology and have importance of it their daily life. The products easy to use the senor sense the issues and prompt a notification in connected mobiles of the user through an authorized application.[3]

Global scenario The level of acceptance of IOT in day to day life is very impulsive in global scenario apart from that the shift of people is very high in proportion to the new product of IOT. As per the data, it clearly reflects that people has understand the importance of IOT in modern era and has positive mindset to adopt and evolve to adapt the future. The Data portray the adaption rate of IOT based product by user in the world from the tenure 2015 to 2025 are 15.41 billion devices connected to 26.66 billion in year 2019 and can grow to 75.44 billion till 2025.(https://www.statista.com/statistics/471264/iot-number-of-connecteddevices-worldwide/)

Objectives of the study:

1. To find the capability in Internet of Things products range and their potential in global market.
2. To find the growth of Internet of things products.
3. To study about five products of Internet of Things about their market review.

Importance of the study:

The study would help to get better understanding of IOT and the perspective of people in accepting the new techno centric world by moving a step ahead by using the IOT products in our day to day life. To understand its usage in the life of its end user.

Research Methodology

Procedure & Design: The Research paper is following the method critically analysing the literature review. For this data is been searched from various tools as google scholar, ebscohost & jgate is the main tool for finding relevant literature review. I also used internet to find 5 most popular IOT products still used in world. After analysing the secondary data. I have to concluded that new invention based on artificial intelligence will be next big evolution in global market.

Five Products of IOT:

August Smart Lock

It's a smart lock for your home as it allows the user to manage their doors from any location hassle-free and to each day data of the guest coming and going and for security it provides unlimited digital keys and full HD video recording. The product is capable of giving the status of home as doors are closed or not. It has smart unlock feature as the owner comes near it the doors it gets unlock automatically. The device also works with 3 voice assistant Siri, Amazon Alexa & Google Assistant. The CNET ranked

the product as one of the best smart locks of the year 2019. On 17 July, 2019 the company reached the milestone of 1 Million user globally.

A flaw in the product is that has no security alarm, unlike competitor Kwikset.

The product cost around US $220 and India it cost around Rs 28,999.

Google Home Voice Controller (Google Home)

The Google Home is the best product in class as in the category of smart IOT products range. The user enjoys the features like media (Songs), alarm, lights, control the volume, traffic details, nearby area information, google support, voice research and many more functions by the speech. The google home takes the instruction by voice and fulfil the query of the user. The google home is fastest growing system in entire range of these category and easily dominating the in terms of sales. The major competitor of Google Home's in market is Amazon Alexa. As per RBC analyst 52 million google home is sold globally out of which 43 million is sold in USA and generating $34 billion revenue to company in year 2018 with $850 million to the

Google's gross profit. The reports stated that it could be doubled by 2020. Its cost is US $ 130 and in India Rs 9,999.


Foobot air quality monitor

This device isbeen manufactured by Foobot for air quality measuring and makes customer vigilant about the air quality of their surroundings specially in densely populated places of Indore where product is largely sold. The supports to focus to health of consumer, various air born diseases in world in the modern era are so common the product like this can help to take customer about conscious about all these problems and can gain protection from VOCs and other harmful gasses like carbon monoxide, noxious and many more. It cost around US $199 and in India Rs 24,514.

Philips Hue Bulbs and Lighting System

The Philips hue bulbs are the smart bulb which are connected by IOT and help customer to change the lights according to the environment as different modes are there from which user can select the perfect lights for perfect occasions to create your own ambience. The bulbs are smart as they have the capabilities of sync with movies and music. The product first launched in October 2012 and the organisation updated it again and again in year 2015 and 2016. The major competition of product in Indian market is Syska Lights. It cost from US $30 to US $100 and in India Rs 1,149.
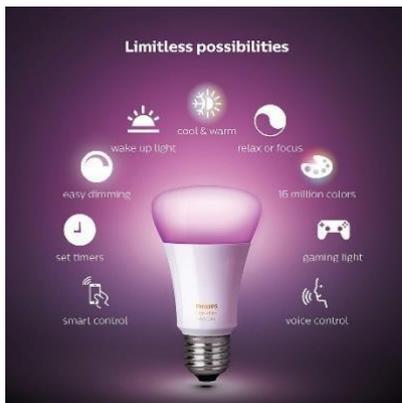
Logitech Harmony Universal Remote

The product is powerful and useful IOT smart devices for daily use as user can use on remote for any device which they have in home and should be controlled by remote from media devices, Air Conditioner to fan and many more. The product get ease to customer that instead of having multiple product at a same time in house the user can now have one for all. The remote supports up to 5000 brands across Globe. The product cost from US $ 49.99 to US

$349.99.

Findings:

According to the research, the global market is enjoying and due to IOT people are evolving to tech enthusiast as the change which world experiencing because of IOT which lead ease in their life and provide a better high tech living in life. As the global figure mentioned above the acceptance of IOT is almost more than double and the expected figure says that almost 75.44 billion devices will be IOT device. The Google home leads with the most users globally.

II. CONCLUSIONS:

The market is accepting IOT devices changing the habit of using traditional devices into intelligent virtual objects. In India the people are shifting and starting to build smart houses specially in metro Politian cities. The government is also putting efforts as in 2019 Union Budget stated that they are planning to build 100 smart cities which will be influenced by IOT devices. It clearly portrays that there is huge potential for IOT devices.

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Retrieval Number: C6055098319/2019©BEIESP
DOI:10.35940/ijrte.C6055.118419
Journal Website: www.ijrte.org

12058

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