South Asian Journal of Engineering and Technology Research Article

Open Access Full Text Article 102(2020)1-5 DOI: 10.26524/sajet.2020.2.3

The advancement of internet of things in the world

Bhanuprathap ponnam[a]
aDepartment of International business University of Bedfordshire luton, England

Corresponding author.
Correspondence:Bhanuprathap ponnam
E-mail:
ponnambhanuprathap09@gmail.com

Article info
Received 5th May 2020
Received in revised form
12 June 2020 Accepted
15 June 2020

Keywords
Internet, Applications, Global, e-learning

Abstract
The present study reports the rapid expansion of Internet of things (IoT) with the increase in the technological aspects across the globe. This can be considered to be the upcoming revolution reaching the masses with different applications ranging from e-learning of educational sector to online Global e-commerce business marketing. Even during the time of Covid-19, there is increase in its usages compared to previous years, keeping all into consideration, the present mini review is drafted to highlight the important parameters and applications of IoT.

1.Introduction

The IoT is a new technological paradigm to defeat the entire world by connecting different objects. In recent days, the IoT start changing slowly as different educational institutions. Now it realizes the importance of introducing technology, into their daily method of teaching. IoT in schools means a more collaborative future and better-connected for education. IoT devices provide better access to learning and search for everything that they need. IoT gives teachers to measure the ability of students learning progress in real-time (1).

It is mainly a technology that supports businesses in processing customer orders and providing customers with information related to their order. To know the entire significance of ICT, you need to understand the advantages of using it in your business. This can be done by first understanding the different services and solutions offered by the ICT company. These services include unified communications, virtualization, network planning, deployment, security, e-commerce and many more.

Companies that need dynamic applications can easily achieve this by choosing a company that offers ICT solutions. They have more than one plan, but they all work the same way - fast data processing, ability to manage multiple sites and provide efficient service to its customers. Companies like Cisco Systems, Microsoft and Juniper Networks are well known for offering excellent services. You can easily get help by utilizing the online resources of these companies. When you have identified your requirements, they will provide you with the list of all the available plans that they offer. Then, you can easily compare the features and prices and finally choose one of them all these information can be easily relates to IoT, data science and artificial intelligence (2-4).

Companies that use ICT also make use of different IT hardware devices to serve their customers. They are offered in different configurations, but most of them can be configured to provide businesses with ICT support. There are a lot of companies that offer IT hardware devices, so you can easily check out the websites of them and purchase the hardware device that best suits your needs. Once you have purchased the ICT device, it is recommended that you test the device in order to understand how it works and to avoid any possible problems (3). Once you have successfully tested the device, you can purchase the device at a reasonable price.

2.Problems and challenges

Smart computing is the recent cycle of technological growth and innovation, and it starts in 2008 and important technology in smart learning environments. A lot of discussion has gone on as to what Problem and Challenges of IOT Technology are. That being said, a lot of the critics have at one time or another written articles criticizing what I have stated. That's the point of having articles, right? So, is it really a challenge to do business?The framework of the smart learning environment has three layers, such as technology, learning framework, and user interface.

- Security and privacy: The main challenge Of IoT education faces the security and privacy issues. A larger amount of educational benefits are being gathered here – including a location, history of students learning, and a lot of personal information.
- Cost of implementation: It is a big challenge in the education sector. These expenses add the cost to purchase a software license, hardware, and maintenance prices.

Everyone seems to think that everything is a challenge, but is it? The fact is, if you don't consider what is truly a challenge in your business, it may not be a problem at all. If you think everything is a challenge in business, you might be experiencing trouble because you are not seeing a solution in sight.In my opinion, it should never be the case that problems arise at the top level. Although most problems in the world are at the top level, you might as well say that a top level problem isn't really a problem in itself.

If you look at any industry where we have human relations, we will find that some problems are at the top level, but as soon as people can create communication networks, they will find that a lot of problems can be eliminated in an efficient manner. That's how I see it.The question, of course, is where do the problems really lie? The biggest challenges I see today in businesses are actually at the bottom level.You see, if I could take all the problems in the world and find the solutions, and then find out what people were using to create those solutions, that would be my first step in solving all the problems in the world. In other words, if you created a 3D Internet solution and provided it to everyone, you would solve a whole lot of problems.

If I could do that, I would find a certain amount of success. That is where the real Problem and Challenges of IOT Technology are.Instead of figuring out how to get money from the government, which is a complicated process, we should be making sure that we can provide this new technology for free. That way, we won't be hurting anybody's pockets with our technology, and we can put money into our pockets instead.

3.An IoT based Application for Smart Exam

The statistics of the exam are crucial for instructors to better asses the metrics of the exam. In this work, we suggest a smart exam system that achieves such statistics and sends data to web applications to make processing by using IoT based technologies. In recent days, with more and more mobile devices and computer systems, it is very important to belong to teaching methods, and it makes the best technological use, and teacher’s motivation using the new emerging systems. The tool uses to investigate the exams is not something that might limit the communication of teacher-student as it is often displayed. Different types of IoT technologies use in educational institutions, but our work is connected to IoT, papers and digital pens.

4.IoT Technique to Education Industry

The IOT technology will be able to provide new ways to convey data, images, sounds and other types of information. As this technology advances rapidly, it will be useful in all aspects of our society including education. It is expected that the Internet of Things will make it possible for teachers and students to communicate much more easily and efficiently with each other. The IOT technology will also make it easier for teachers and students to collaborate in order to share information or collaborate on projects.

With the help of IOT technology, teachers will be able to provide students with much more relevant and educational material. In fact, IOT technology will allow teachers to teach without any physical contact with their students. This will make communication much easier and it will also be more effective in terms of learning and educational material. The use of IOT technology will also allow teachers and students to collaborate in order to provide students with all the resources that they need in order to learn and to communicate with each other. This will also help in learning more efficiently and effectively. IOT technology will also allow teachers and students to work in a virtual world in which they will be able to collaborate with each other without being physically located in the same place. Therefore, this will provide teachers and students with many different advantages.

Today, learning is improving occur anyplace and at any time. It suggests to the e-learning environment extends from virtual learning conditions to both virtual and physical ones. It contains another development innovation is the Internet of Things. Emerging technology provides service to make e-learning friendly and easy. This paper surveys various procedures to utilize as part of e-learning systems. It is powered by IoT technology for better information and get learning knowledge. Toulouse and Bechard measure on a design from the educational science to build four educational orientations. Mobile broadband memberships develop faster by 2014. So, peoples are talking about to develop smart cities and digital environments to implement IoT in education. This kind of education is helping learners to develop all the way (4).

5.Social Implications of Smart Learning via the Internet of Thing (IoT)

Smart Learning and IoT is a new vibe in the domain of education. Smart education is ready to change the entire scenario of the learning process and teaching. This paper describes the smart learning environments because education is an important transformation of education and pillar of society. If the classrooms are change normal to smart. This paper describes the user requirements to fulfill the demands of the end-users. The IoT impact is visible in every domain of human lives, but education isn't left out. Smart learning fulfills the goals of everywhere, anywhere, along with manual learning with appropriate feedback suggestions and analysis to the end-users. Different technologies are using in IoT education can explain their usage (4).

6.Ubiquitous Smart Learning System

The paper describes the smart-learning system that uses IoT, supercomputing, huge information. The idea is to utilize everywhere throughout the world with different terminologies, implications, and setting. Various colleges using the IoT technologies currently for giving free access permission to all the courses of students and learning business processes around the world. This paper explains the developments around smart social orders and smart cities to examine smart cities' advancement. The paper discusses datasets to compute spatial-transient exercises of clients. The author plans to describe the smart learning system that is used in smart cities. The smart learning system is to examine the IoT components of the advanced foundation (5).

7.Network Intrusion Detection for IoT Security on Learning Techniques

IoT considers as the third industrial revolution. The IoT things or objects have become smarter, treatment is more communication, and intelligence has turned instructive. The paper describes and deals with intrusion detection in IoT. This paper author presents the architecture of NIDS in detail. Hodo et al propose deep network taxonomy and shallow and surveys intrusion detection system. Mishra et al, analyze and compare the machine learning limitation techniques as well as constraints for deployment (6).

8.Role of IoT in education

Internet of Things able to exchange and make information usage for student interaction and participation with class teachers and fellows in a very suitable way for students and then university campus life to improve the efficiency and delivery of everyday activities. The research goal is to propose a low-cost and identify, flexible, and efficient platform to assist the introduction of the IoT paradigm (7-9)

9.Role Of IOT in COVID-19

The job of an intelligent Internet of Things (IoT) system developer is getting more challenging. In fact, there are so many devices today that the IoT developers are finding it almost impossible to keep up with all the device releases. One such device was recently developed by Nadikattu et al., 2020 which was capable of detecting corona patients in outdoor surroundings, the device is smart and economical which has gained popularity (10). So, what can they do to be able to cope with these devices and still come up with innovative products You can look for answers from these three essential factors:

- Longevity - Although this is not really a factor, but you might as well expect that it would be a bit tough. IoT devices have a life cycle of their own; it is important that the manufacturer of the device can guarantee that they can support it for years to come. This should ensure that the device manufacturers can support all the features that the device has.
- Adaptability - The development of devices depends on a lot of factors. One of the most important of these factors is the ease in which it can be used by the users. If the device is not adaptable then it would mean that there would be fewer opportunities to use the device.
- Improve Performance - As was mentioned earlier, this also comes under the part of the adaptation factor. For one thing, the device must be able to deal with various scenarios and be capable of handling those scenarios in a better way.
- Support IOT vendors - Any device or software used to manage the devices needs to be developed for the specific needs of the devices. Therefore, it is important that the vendor should have a firm grasp on the requirements of the product, making sure that they can meet them adequately.

On the whole, responsible devices require good IoT developers. The software for managing the devices should be able to adapt and handle the new and evolving requirements and also be capable of supporting all the feature sets of the device and the user.

Conclusion

Furthermore, it is important that the developers should know the kind of commercial viability of the product. It should have a sound and reliable algorithm for presenting information to the users and be able to provide the accurate data and also the appropriate options.There are many companies out there that are willing to provide the companies that are developing the products with all the tools that are required to develop the products in a secure and cost-effective manner. You can look for such companies and request for feedback from them. You can also search for these people online and you would find many reviews from people who have used these products.

References

1. Juhi Bhatt, & Anurag Bhatt. (2017). IoT Techniques to Nurture Education Industry: Scope & Opportunities. Scopus Indexed Journal - IJET | Scopus Indexed - Research Trend.
2. R.R. Nadikattu. 2016 THE EMERGING ROLE OF ARTIFICIAL INTELLIGENCE IN MODERN SOCIETY. International Journal of Creative Research Thoughts. 4, 4 ,906-911.
3. https://www.iottechnology.com/
4. Dr. Parul Verma. (2018, March). CHALLENGES, ISSUES AND SOCIAL IMPLICATIONS OF SMART LEARNING THROUGH INTERNET OF THINGS (IOT). IJCSMA ONLINE JOURNAL.

5. https://internetofthingsagenda.techtarget.com/definition/Internet-of-Things-IoT
6. Elhoseny, H., Elhoseny, M., Abdelrazek, S., Riad, A., & Hassanien, A. E. (2017). Ubiquitous smart learning system for smart cities. 2017 Eighth International Conference on Intelligent Computing and Information Systems (ICICIS), 329-334.
7. Nadia Chaabouni ; Mohamed Mosbah ; Akka Zemmari ; Cyrille Sauvignac ; Parvez Faruki. (2019, January 30). Network intrusion detection for IoT security based on learning techniques - IEEE journals & magazine. IEEE Xplore
8. https://www.sap.com/trends/internet-of-things.html
9. Salman Mahmood ; Sellappan Palaniappan ; Raza Hasan ; Kamal Uddin Sarker ; Ali Abass. (2019, February 21). Raspberry PI and role of IoT in education - IEEE conference publication. IEEE Xplore.
10. Nadikattu, Rahul Reddy and Mohammad, Sikender Mohsienuddin and Whig, Pawan, Novel Economical Social Distancing Smart Device for COVID-19 (July 1, 2020). International Journal of Electrical Engineering and Technology (IJEET), 2020, Available at SSRN: https://ssrn.com/abstract=3640230