COMPUTER SYSTEMS IN TERMS OF FULFILLING LOCAL AND GLOBAL CHALLENGES

Ayjeren Atjanova

Department of Applied Mathematics and Informatics, Oguz han Engineering and Technology University of Turkmenistan

Introduction

Computer is derived from compute means Calculation. Computer is a machine work on programs to receive the input, make the processing and give the data in the form of output. First computer was developed in 1940-1945. The size of the computers developed initially very large. These computer developed in the early age were very power consuming (Computer. 2010). Today's computers are very powerful compare to the initial stages while these are very smaller in size as compare to the early stage of machines

For the first time the word computer was used in 1613, means a person who makes the calculation. This sense was used until the mid of the 20th century. From 19th century the word is used for a computer to make the calculation

In short, it is saying that computer is anything to give meaningful information. May be it does not contain the hardware like hard disk, Ram or even a processor (Charette, F. 2006). (Silvio, A.; Bedini, F. R. and Maddison. 1966). (Price, D. S. 1984).

Computer Components

Hardware

The physical portion of the computer that can be touch is hardware. This portion may contain processor, Ram, Mother Board and other input and output devices.

Software

This portion may contain the programs to carry out some task. Software may be of the type system software and application software broadly.

Role of Computer Systems in Different Areas

Computer in Education

Computer plays very important role in the field of education. It is used for different purposes like to make the software for any component to make it computerize. After the computerization the work become very consistent and also it increase the speed of the system.

In educational institution specially the official work become speedier and fast by the use of this device. With the help of Computer students may record their lectures for future use. In some circumstances its act likes a teacher for the students.

Computer in Medical

In the field of medical computer play a significant role. Databases may be developed to make the work accurate and speedy. Doctors may use it for the secure storage of the patient data. The patient data may be simultaneously access from anywhere by different personnel and can be easily edited. Printed charts are more accurate and reliable and easy to see in comparison to that of handwritten charts. Medical data which is required for future use can easily be stored by backup procedures and may be available in future if required.

Also the data can be stored by giving passwords from unauthorized access. Data can be displayed in different format. Different screen displays can be used. Data stored in computers can be available to all doctors by keeping in a central location and connecting different side by network. Data can be accessed by different doctors regardless of their location. Hard copy of the data can be obtained by the output devices in different colors and fonts.

Computer in Engineering

In the field of engineering use of computer is very vast. Engineering is now possessing different branches of computers like system engineering and software engineering. These are very broad and wide branches of computer in the field of engineering. It's make the work of engineers reliable and consistent. Different engineering tools are used like CAE and CAD.

Computer in Business

As business is a very vast field. A lot of peoples are working and earning from this field. This field provides jobs to a lot of peoples. It is a very versatile field. Computer adds a new dimension to this field by integrating its work. Now computer is used by the business peoples for different purposes like software's are used to speed up and secure its work. Internet is used here to speed up the communication process. Gigabyte and even tera byte of the data can be stored.

Computer in Space Science

Computer systems are very helpful in space sciences. It gives a new way to the field of space sciences. Rad-hard chips are used by the scientist for more accurate work. NASA relies on these chips. The scientist uses the CPU's on moon or mars surface to collect and analyze the data.

e-Government

e-government uses computer to improve the work of public organizations. In e-government e-administration is the portion to regularize the work of the administration portion of the sector. Also it connects the citizen to each other by e-citizen. Also it reduces the cost of the organizations by applying different techniques.

Developing Strategic Combination in Government: In this process government agencies are making strengthen by collecting the data to facilitate investigation

Conversation with the Citizen: In this process the detail service activities have to provide to the people. This may have to make the citizen more accountable and workable regarding their activities like decision making.

Responding to the People: here the people are involved in the decision of the public sector this may be refer involvement or democratization

Working Better with the Business: This may refer to the relation of the business community with the government. Here the interaction is made in such a way is to improve the performance

Making Communities: Communities have to do work to make productive community. Here in this, people are socially involved to work with each other to solve different problems with different methods and then the data is to be stored for future use.

Computer in Environmental Science

Environmental Science is also very important and computer can be used. People are using in today global world the term "Green Computing" peoples are unaware that what this term means. It is the use of computer sciences resources for the betterment of the environment and to save the energy. The main target of the green computing is to give help to triple bottom line. That is used for the success of organization which is also similar to green chemistry. Green computing actually help to recycle machine equipments.

For the first time green computing is used in 1992 when EPA make energy stars. That is to facilitate and promote energy efficient calculation. For the first time in history it is because of this creation that computer manufacturer introduces sleep mode in their systems for the saving of energy while not using the computers. The green computing terminology is begun to be used by the peoples at that time. Many government agencies start to help and struggle for better standards for campiness for the promotion of green computing. Energy star was revised once again in 2006 to make more strict ranking systems for the creation of products.

Green IT Systems

Now a day most of the IT systems depend on both people and as well as on hardware for the purpose to take the computer systems to the green computing more nearly. This well helps the company and also more. But to achieve this is not easy because it requires the satisfaction of all like users, campiness and also the management. This is for the purpose to keep everyone in the circle happy.

Green computing is the new term, so mostly the home users are not familiar with this. This is started and become the mainstream and necessary for both the user and the manufacturers and also for the environment.

Computer in Industry

The use of computer in business is very wide now a days. This is more use full for the utilization of their resources more accurately and efficiently. This is because of this that IT jobs were advertised by the campiness in a huge amount.

Inventory Control

The benefit of inventory control systems is to maximize company or organization's production by using less inventory investment. That is to check the store of the business.

Payroll

Most of the industries are largely depend on computer payroll systems.

Cash Registers

Computers in a networking environment are just like cash registers for the record keeping purpose more accurately

Websites

Now a day, business communities are using web sites for its work. Like advertising, Online shopping, Customers record storage. Simply these websites make the industry work more efficient and consistent. Websites may be used to keep the customers aware of everything. It gives a new dimension to the world of industry.

Conclusion

In this paper an attempt has been made to identify use and application of computer in different field of life as well as in the whole universe. So here we see that computer facilitate and control the life. And also the whole world is connected together with the help of international network and also the universe by sending messages from the space and different planets to the human world. Some fields are discussed to show that really computer systems play a vital role in these systems and organizations. It is shown that the efficiency after and before are very different. This add a new edge to these systems