

Information Technology

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Abstract:

The term "Information Technology" or IT is a buzzword in the modern world. Although this field is so powerful as a single discipline today, it is truly an integration of two fields. These two fields are known as communication and computer technology. According to history, the communication technologies have been developed from the inception of civilisation of mankind. In this sense, the development of communication technology has recorded key inventions such as the printing press, photography, telephone, radio, television, transistor, CD-ROM, Satellite-communication, etc. On the other hand, the history of computer technology dates back to 3000BC. Around that time, Chinese developed the Abacus in 200BC. However, the first part of the development of computer technology was very slow. As a result of that, after the invention of Abacus, only in 1832 that Charles Babbage developed the first mechanical computer. Since then, the development was still slow and it took more than one century to make any remarkable development. Consequently, general theory for electronic computers emerged in 1930. At the same time with the invention of transistor in 1947, the first electronic computer was invented. In the early 1950s, the digital computer or the modern computer was born. As a result of the birth of digital computer, the communication and computer technology began to merge and develop along the same line. Nowadays, the information technology is yet another name for computer technology. There is no information technology, which is independent of computer technology.

Today's world is an information/knowledge world. Although, the two terms, knowledge and information, have different meaning, here we treat them as synonyms. The most valuable commodity in the modern world is information or knowledge. People deal with information in various ways by sending, receiving, processing, storing, selling, advertising, etc. of information or knowledge. All these means of information can be done using the modern digital computer. In fact, people realised that there are different ways of treating information by looking at the capabilities of computers. Sometime ago, it was told that computers couldn't create any information, which was not seen by the programmer beforehand. However, computer technology has now shown the possibility to even generate new information/knowledge, which has not been seen by the programmer before. Among others, the software technology is a great asset given by the information technology to mankind. It is a reusable technology. It also does not break due to repeated usage. It can also be reproduced at a very nominal cost. The physical space required for storing software is considerably low. The software never becomes unusable unless, there is something wrong in the storage media. Further, software development has been the major mode of marketing of intellectual talent worldwide. As a result of that the information technology has created a large number of job opportunities, which has never been generated by any other disciplines. So, software technology emerged as a major part of information technology and it is incomparable with any invention that mankind has ever made.

Without doubt, information technology has offered the most resourceful way of acquiring knowledge. In the modern world, the Internet like concept has provided an extremely powerful media for learning. The power of computer technology as a means for learning is incomparable because, it is multimedia based and interactive in a dual way. In that sense, further to the acquiring of knowledge, information technology can also be used to disseminating knowledge without seeking permission from various authorities. Further, modern information technology provides fast access to most up to date knowledge at an incredibly low cost. The modern

advancements in other disciplines show that information technology is not only a reservoir for information but also the fountain of knowledge. This is due to the fact that information technology provides a yet another powerful environment for researching into invention of new knowledge. Furthermore, the computer-based simulation is a powerful means for modelling the real world. In this sense, the computer based design, manufacturing and testing cost very little as compared with real life modelling. The information technology has already replaced the most devices at home and office. In the near future, computer technology will work with both physical and intellectual realms. Computer technology has also influenced the modelling of human intelligence. As a result of that Computational Intelligence, or traditionally Artificial Intelligence, is now driving the modern trends such as Agent technology in information technology. In the future, intelligent computer systems will become a major part of society.