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Information Technology Information Technology Introduction Information technology is the computers and other telecommunication application tools for storage, transmission, retrieval and manipulation of data. It is commonly related to computer networking and it entails all the technologies used in distributing information like telephones and television sets. Information technology relies on other industries like the computer hardware and software, electronic and other related computer services.
In the definition of information technology, three categories are always considered to explain it; these categories are, processing techniques, statistical and mathematical application methods to make decisions, and the use of computer programs (Doyle, 2000). The major processes that take place in information technology include,
Data collection and storage
Data to be used in any project is collected from the field and entered into the computer using several data input devices like the keyboard and the scanner. The data is then stored in the computer system for later use. Storing data in the field of information technology is done with internal computer hard disks and other external storage devices. These devices store data that is important to the users of the systems involved (Doyle, 2000).
Database management
A database refers to a group of related data collected and stored together in a computer system to be used in the near future. Most database systems contain a number of different components that allow the stored data to be easily accessible by multiple users while at the same time maintaining the integrity of the data (Hannabuss, 2009).
Data retrieval
Data retrieval refers to the process of obtaining the processed data from the computer by various users. An example of data that is retrieved from the computer is of different nature and can be derived from different sources within the computer storage systems or from external sources (Ray, 2004). The external sources in which data can be retrieved include the Internet and the retrieved data is usually used to facilitate some decision support systems.
Data transmission
Data transmission refers to the transfer of data from one computer to the other. Transmission takes three aspects that are, propagation, transmission and reception. The transmitted data is used by the computer users to complete some specific projects and in the decision-making process (Ray, 2004). Transmission can also be done through the Internet.
Data presentation and manipulation
There is a lot of data storage in the world today and the amount of data available for use is increasing each day. An equal number of data users accompany the increase in the amount of data in existence too. The stored data is not meaningful until data experts analyze it and their interpretations used to make the required decisions. The analyzed data is then presented to the target audience in either softcopy or hardcopy forms.
Conclusion
Information technology has gained its roots into the world today and most businesses are quickly adapting to this trend. There is a notable change in the ways that the world operates and most of the businesses are being carried through the Internet. The advantages of IT are that, a lot of time is saved in transacting some businesses, the system is economical to maintain after installation among others. Some of the shortcomings of IT are that, the adoption of this technology in the offices may lead to retrenchment of workers; the system also calls for qualified personnel hence an additional training cost is introduced.
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