

Information and Communications Technology

Information Technology

Information Technology (IT) refers to the entire information domain, which includes the hardware, software, peripherals, and network.

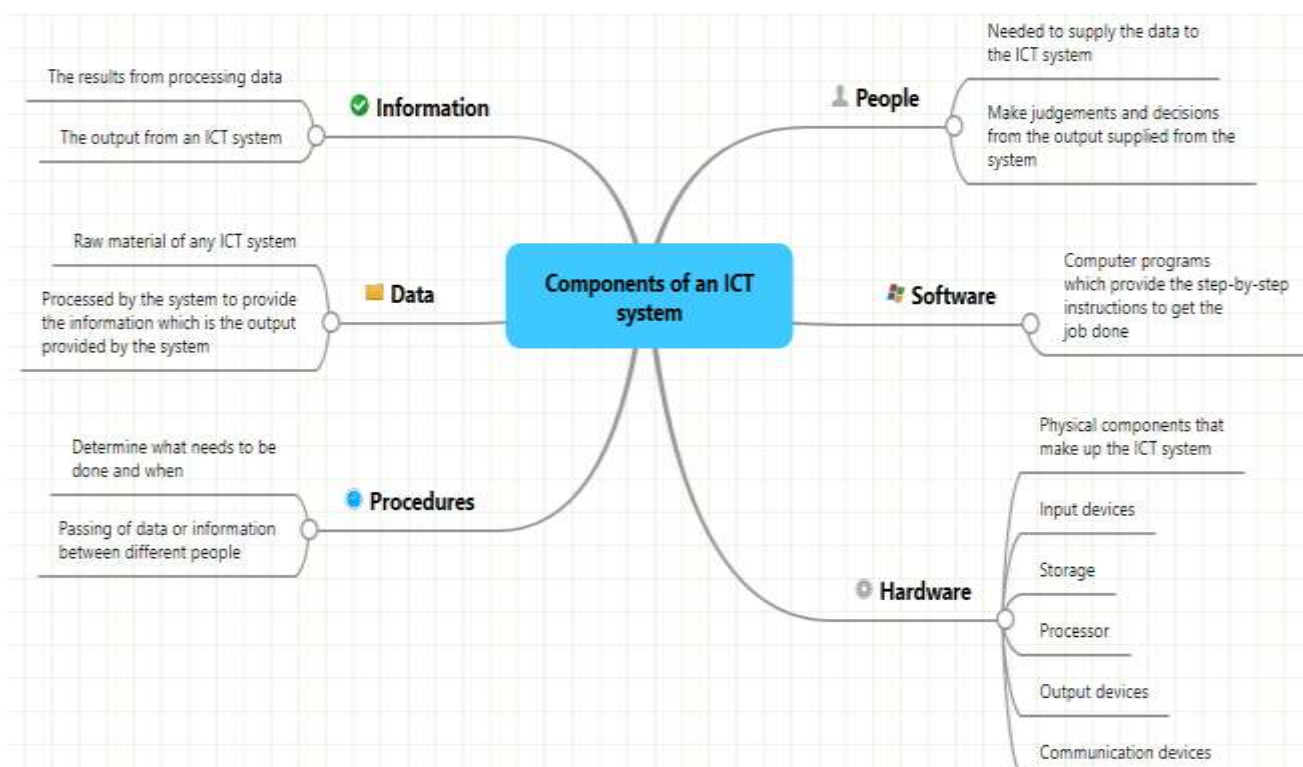
Information and Communications Technology

The term is used mostly within the academic arena to refer to the branch of IT related to digital devices that are used to communicate or interact with digital information. This term is used to describe a very specific area of IT and is more specific than the general idea of networking.

IT vs. ICT

The difference between IT and ICT is the concepts that the terms cover. ICT is simply a specific area of IT. The concepts covered within ICT are part of the IT industry, but not all IT concepts are covered by the term ICT.

Components of ICT



Software – Computer programs that provide step-by-step instructions to get the job done.

Hardware – Physical components that make up the ICT System. Input Devices, Storage, Processor, Output devices, Communication devices are examples of Hardware.

People – Make judgments and decisions from the output supplied from the system. People are needed to supply the data to the ICT System.

Data – Raw material of an ICT System, it is processed by the system to provide the information which is the output provided by the system.

Information – The results from processing data and the output of an ICT System.

Procedures – Passing of data or information between different people. It determines what is needed to do and when.

ICT Societal and Economic Impact

- Information communications technology (ICT) has the power to transform society.
- It plays a key role in each of the United Nations' Sustainable Development Goals, providing the infrastructure needed to achieve them.
- It also enables financial inclusion through m-commerce and allows people to connect instantaneously.
- It empowers people to share knowledge and advice instantaneously and set up an online shop or website at a low cost, dramatically lowering the barriers to starting a business.
- Advances in technology have always been used by for-profits to increase revenue

ICT is developing social businesses in three (3) main ways:

Affordability

- ICT solutions have decreased set-up costs in an unprecedented way. This helps social entrepreneurs to make it through this uncertain period without major investments or losses – and advice is only the click of a button away.

Scalability

- ICT infrastructure allows us to connect instantaneously with millions. Many social businesses also utilize ICT solutions to optimize processes, reduce costs, and increase accuracy, enabling the business to be scaled up faster.

Community

- To ensure lasting empowerment, social businesses work from within the community. As previously highlighted, ICT allows social entrepreneurs to continuously connect with the people they wish to empower in a direct and engaging way.
- Online channels are also an incredibly powerful way to broadcast business messages.

Significance of Information and Communications Technology

- **Education**

The inclusion of ICT in the school curriculum helps students to make effective use of resources and development of students' interests in studies. With the use of high-quality standard simulation for demonstrations, students can be encouraged to take keen participation in studies. As a result, they can achieve better grades in other subjects, apart from information technology (IT) only, and determine the different ways of using the requisite information in specific ways. Therefore, ICT becomes all the more important from an early age to familiarize the students with it, as it is not a one-time course, and will be required throughout the education and adult life.

- **Development**

Due to its high accessibility and affordability, ICT solutions are providing a number of employment and entertainment opportunities. Society groups are taking due advantage of ICT in transforming and using the untapped resources to the best utilization. Further, due to easy access to ICT to telecommunication services, remote areas have been introduced with mobile banking and internet services, thereby contributing to socio-economic development. Also, communicating and interacting with peers over long distances has been reduced to a mere telephone, email, or video conferencing.

- **Environmental Stability**

ICT is largely being used in environmental monitoring of projects to improve the standard of living of the population. People who are illiterate about the unprecedented knowledge of environmental systems are educated about the same and different ways of utilizing them. These literacy barriers are broken through communication, such as using video and radio. Further, they are empowered to bridge the gap between environment and development.

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