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Some Aspect of Information and Communication Technology in the Development of Smart Cities in Bihar

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Abstract

Information and communication Technology can simply be defined in its simplest form as an electronic medium for creating, storing, manipulating receiving and sending information from one place to another. Information and communication Technology is a field that has a wide coverage. It extensively deals with communication technology and how it impacts on other fields of human endeavor. Information and communication Technology is confronted by a number of challenges such as expensive ICT materials, highly technical and practical driven, poor orientation about the concept, underdevelopment, Hijack by unscrupulous person and so on. This paper attempts to analyze and evaluate the meaning, Scope importance and challenges of ICT in developing a smart city.

Keywords: Information, Communication, Technology, Development, Bihar

Introduction

Information and communication technology (ICT) is an extensional term for information technology (IT) that stresses the role of unified communication and the integration of telecommunications (telephone lines and wireless signals) and computers, as well as necessary enterprise software, middleware, strong and audiovisual systems, that enable users to access store, transmit, and manipulate information. The term ICT is also used to refer to the convergence of audiovisual and telephone networks with computer networks through a single cabling or link system. The ICT is a broad subject and the concepts are evolving. It covers any product that will store, retrieve, manipulate, transmit, or receive information electronically in a digital form (e.g., personal computers, digital television, email or robots)

Meaning of information and communication technology

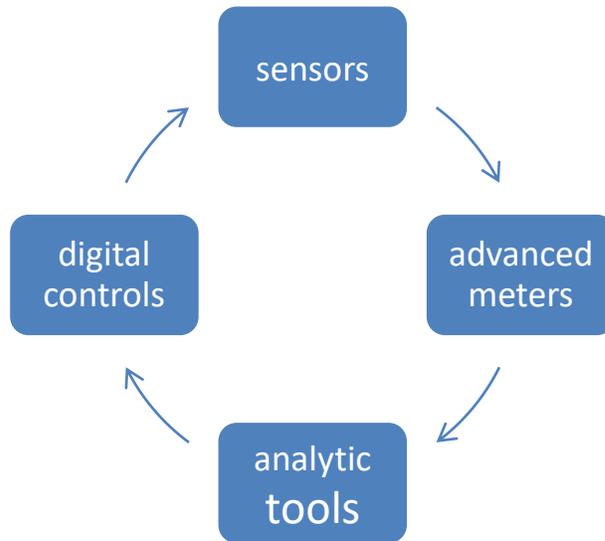
Information and communication Technology can simply be defined in its simplest form as an electronic medium for creating, storing, manipulating receiving and sending information from one place to another. It makes message delivery faster, more convenient, easy to across, understand and interpret. It uses gadgets such as cell phones, the internet, wireless network, computer, radio, television, satellites, base stations etc. These resources are used to create, store, communicate, transmit and manage information.

The scope of information and communication technology (ICT)

Information and communication Technology is a field that has a wide coverage. It extensively deals with communication technology and how it impacts on other fields of human endeavor. It is the fastest growing academic field of study and a viable source of livelihood. It is the convergence of telephone and computer networking through a single cabling system with case of data storage, manipulation, management and retrieval. It is concerned with database management, computer programming and software development, web designing, mobile application development, project management, security, networking analysis, media equipment, computer engineering, computer studies, the internet, internet, internet protocol (IP), system software, application software, signal technology, base station management etc.

ICT Policy 2015

According to the ICT Policy 2015 by Government of India, A Smart City model will involve the deployment and display of ICT Concepts for use in Smart City growth. The Model will cover such concepts as Smart Lighting, Smart Traffic Management, Smart Construction, Smart Parking, Wi-Fi Internet Access and City surveillance, Solid- Waste Management, Smart Metering, Water Quality, City Water Clogging management etc. and development tools to allow accessibility for disabled persons.



The ICT Policy 2015 allows Smart Cities to make proposals under the Pan City development and the launch of the Government's Digital India Programmed, Which aims to transform India into a digitally empowered Society and a information economy, provide the requisite for ICT growth in the region.



As for example, Patna has a free Wi-fi of 20 km from Danapur Town present in Western Patna to National Institute of Technology (NIT), Ashok Rajpath. The Wi-Fi provide free internet Connection when come in range within the location. BUSCL, is responsible for the disposal of solid waste in the state. The project Cost Rs. 110.59 Crore under the Jawaharlal Nehru National Urban renewable Project, which is federally funded program. It also provides for the construction of integrated solid waste treatment facility at Beriya Village with a daily capacity to handle 800 to 4500 tons of Solid Waste.

Importance of information and communication technology (ICT)

- 1- It creates an analytical mind of students that help them study and proffer solution to problems emanating from all related fields that employ it as a learning tool.
- 2- Being an emerging academic field of study, it helps students to be innovative and develop new ways of solving problems scientifically.
- 3- It makes information storage and retrieval easy.
- 4- It enhances computer networking globally know today as internet and intranet.

- 5- It accelerates economic development nationally as it is a virile source of national income for all nations that have fully embraced its usefulness.
- 6- It creates gainful employment, hence a viable source of livelihood.
- 7- It makes comprehension of other subjects easy.
- 8- It creates an avenue for the exchange of ideas and inventions among information technology scholars locally and internationally.
- 9- It is the basis for e-learning and online library. Hence information dissemination is easier than ever.
- 10- It is used at various offices for proper documentation of official activities and administration.

Challenges of information and communication technology

Information and communication Technology is confronted by a number of challenges which is characteristic of an emerging field. The following are some of the challenges:-

- 1-Expensive ICT materials: The requisite material for practical knowledge of ICT especially at the advanced level are costly e.g. computer, projector, internet machine etc.
- 2-Highly technical and practical driven: It is technically driven. It requires a great deal of logic and analytical reasoning for in-depth understanding and application.
- 3-Poor orientation about the concept: The first challenge in embracing ICT as a field of study for students who have no prior orientation from their foundation education is that of speedy assimilation.
- 4-Underdevelopment: ICT is a global concept and in order vases shop have an up to date knowledge on the subject there must necessarily be technological development nationally at least well established global information link on the subject. Many nations are yet to attain this.
- 5-Universal acceptability as a compulsory field of study: - The subject is yet to be full embraced by all institutions of learning from the cradle globally. Although it is now compulsory at the high school level in some countries. Unless there are solid foundation and love for the subject, compliance for all may still take a time to attain in line with the global millennial goals.
- 6-Hijack by unscrupulous persons: ICT is being used by some persons for civil purposes such as cybercrime and malicious programs that can cause several damage to computers and similar gadgets.

Conclusion and suggestions

India IT needs to do several different things. It needs to change its model of operations and move away from the old fashioned ADM (Application, development and maintenance) model that has delivered the bulk of the growth in the past. Whether the new model involves innovation such as outcome based billing or opening near shore centers depends on the company. Secondly the India ICT industry needs to focus on the new, high growth area cloud services, Mobility Services, big data, etc if it plans to remain relevant in the market place (Data, 2013). The other suggestion can be summarized as follows:-

- 1- Connect villages with ICTs and community access points.
- 2- Connect universities, Colleges, secondary schools and Primary Schools with ICTs
- 3- To interlink Scientific and research centres with ICTs.
- 4- Connect public libraries cultural centers, museums, Post Offices and archives with ICTs.
- 5- Connect health Centres and hospitals with ICTs.
- 6- Connect all local and central Government departments and establish websites and addresses.

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