

## **ICT: Its Coeval (Contemporary, Cutting-edge, Conspicuous) Technology**

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### **Abstract**

The world is evolving every second and the new information and communication technologies (ICTs) [1] are becoming robust contributors to this change. Society is transformed from an industrial model with vertical hierarchical structures to a networked society with increasingly horizontal organizational structures. The accession has been underpinned by the internet and increasingly interconnected devices for computation and communication (such as mobile phones) that has shown an incredible growth in communication and collaboration possibilities. ICT has established its relevance in each and every field be it education, health, business, legal or consultation. ICTs has metamorphosed (revolutionized, restructured) in each and every sphere. ICT has enormous potential in changing the functioning of the society. ICT has given new dimension to DER (Digital Education Revolution) policy. In this paper, we will convey the issue which will delineate the impact of ICTs on reshaping the world.

**Keywords:** ICT, DER, Quantitative Analysis, Metamorphosed etc.

### **1. Introduction**

Information and Communications Technology (ICT) assimilates telecommunications, computers, required enterprise storage, software, and audio-visual systems to enable users to access, store, transmit, and manipulate information. In other words this means unification of communications.

The term ICT has been in vogue since the 1980s. But in the present context ICT now points to the convergence of audio-visual and telephone networks with computer networks[2][4] through a linkage system. ICT has today assumed the role of a greatest

facilitator that drives the world. Ever since its origin, information and communications technology, including software, hardware, telecommunications, and the Internet — has been, is and will likely remain for the foreseeable future, the dominant driver of growth and innovation in the global economy. This is not without reason. ICT makes sense in view of the huge economic incentives it provides to governments, industry, enterprises and the world economy. This technology has contributed substantially to GDP of countries the world over. Global output from IT industries more than doubled from \$1.2 trillion in 1995 to \$2.8 trillion in 2010, accounting for 6 per cent of global GDP.

ICT drives growth and productivity. The Internet alone accounted for 21 per cent of the GDP [3] growth from 2006 to 2011 across 13 leading economies—Brazil, Canada, China, France, Germany, India, Italy, Japan, Korea, Russia, Sweden, the UK, and the United States.

### 1.1 Application Areas

- **E-government:** Implementation of e-government strategies aimed at innovating and promoting transparency in public administration and democratic processes, developing national e-government initiatives and services, designed to meet the needs of citizens and business, to achieve a more efficient allocation of resources and public goods.
- **E-business:** Promotion of international trade and the use of e-business models in developing countries and countries with economies in transition by adopting an enabling environment, and based on widely available Internet access, governments seek to stimulate private sector investment, foster new applications, content development and public and private partnerships.
- **E-learning:** ICTs are contributing to achieving universal education worldwide, through delivery of education and training of teachers, and offering improved conditions for lifelong learning, encompassing people that are outside the formal education process, and improving professional skills. In the context of national educational policies, and the need to eradicate adult illiteracy, ICT ensures that the young are equipped with knowledge and skills.
- **E-health:** ICT helps create high quality, reliable, timely, and affordable health care and health information systems and for promoting continuous medical education, training, and research. It facilitates access to medical knowledge and locally-relevant resources for strengthening public health research and prevention programs. It helps in the control the spread of communicable diseases, through the improvement of common information systems.
- **E-employment:** ICT encourages the development of apt practices for e-workers and e-employers at the national level, on principles of fairness and gender equality, respecting all relevant international norms. It promotes new ways of organizing work and business with the aim of raising productivity, growth and well-being through investment in ICTs and human resources.

- **E-environment:** Governments are encouraged to use and promote ICTs as a means for environmental protection and the sustainable use of natural resources. The civil society and the private sector are encouraged to initiate actions and implement projects and programs for sustainable production and consumption economies.
- **E-agriculture:** The systematic dissemination of information using ICTs on agriculture, animal husbandry, fisheries, forestry and food, boosts agricultural development.
- **E-science:** ICT plays a critical role in information and knowledge production, education and training [3], and to support the establishment of partnerships, cooperation and networking between various institutions.

## **2. Pros and Cons of ICT**

### **2.1 Impact of ICT in Education**

In a diverse country like India ICT has been considered a promising tool especially in extending educational opportunities, as most people in the rural regions are traditionally excluded from education due to cultural or social reasons such as cultural minorities, gender issues, persons suffering from physical disabilities, and the elderly, as well as all those who cannot afford the expenses or time it demands, are unable to get themselves enrolled in schools or campuses for higher education.

### **2.2 Impact of ICT in Employment**

ICT has a major role in creating job opportunities like software developments [4]. And it gives you the flexibility to work from home. You can even attend your business conferences from anywhere without being physically present, provided you have your internet connection with you.

### **2.3 Impact of ICT in Healthcare**

The ICT also has a major role in improving the lives of the patients by providing information to them. ICT can be used to create databases of the patients helping physicians to refer their results for the tests and compare it to the expected results. The medical record can be hacked, lost due to system crash, illegally downloaded etc, hindering the patient's confidentiality.

### **2.4 Impact of ICT on Society**

ICT has helped in overcoming global, social, cultural barriers. Now people can connect, socialize and even trade through internet. ICT has also facilitated faster data communication services, the data can be transmitted from any part of the world to anywhere at any time in just few seconds. There are pro's and con's discussed below in Figure No 1.

Area	Pros	Cons
<b>1. Education</b>	Acts as a catalyst in learning process.	It becomes difficult for the unskilled people to catch up with the rapidly growing technology.
<b>2.E-business</b>	It has reduced the distance between workstations to just few seconds via internet.	It does not assure security, as the database maintained on the internet is prone to be hacked.
<b>3.E-Banking</b>	It gives flexibility by allowing online transfer and withdrawal.	Privacy concern is again a big question.
<b>4.E-Industry</b>	It gives quality assurance and the productivity is increased.	It leads to unemployment as the computers and robots.
<b>5.E-Commerce</b>	Online trading has been a major contributor in boosting the economy of the country.	There is always a risk of losing money due to online frauds.
<b>6. E-Health</b>	The use of e-Health knowhow allows a mutually valuable collaboration and involvement of patients.	The records of the patient might get lost due to system crash.

**Figure 1:** Analysis: Life With and Without ICT.

### 3. Conclusion

There is virtually no field which can do without ICT. ICT applications can support sustainable development, in the fields of public administration, business, education and training, health, employment, environment, agriculture and science within the framework of national e-strategies. ICT has proved to be a key factor in the development of the country and claims to sustain its roots in almost all the sections of development. It overcomes all the global, social and cultural barriers by connecting people across the globe via internet and telecommunication.

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