



ICT and Human Development : A Global Perspective

KEYWORDS

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In present era the integration of technological aspect with socio-economic platform is necessary for sustainable development. Now a day the information communication technology is the central part of development process. It assists the common man to solve their various types of problems. It contributes to strengthen of productivity of the people in relative fields.

ICT is such technological system that fulfils the deficiency of communication between people and formal system or structure of development. It is able to meet the gap of formal communication system and help to people as it supports to bring creative environment to run well the development process that ultimately affects the level of living standard.

For the purpose the technology should have reliability and effectiveness in the sense of speed, accuracy, transparency, and auto-easy operational features. So the success and real usefulness of ICT is depending on acceptability and good feelings towards get desired benefit or appropriate solution of problems.

Human Development

Development is about change. Change for the better. Development is about making a better life for everyone. In a country full of inequalities, a better life means first of all, the meeting of basic needs of food, protection, education, health and a healthy environment, where all people can live with dignity and respect.

As per Gandhi's ideology : Development is not merely about money and wealth; it is also about ethics and values that all societies respect.

Mowlana and Wilson stated that "development" as a conceptual framework for a number of individual, institutional, national and international changes is essentially a post World War II phenomenon. We can also called synonymous with growth, modernization, change, democracy, and in the beginning was focused largely on economic development.

Economic development

Economic indicators such as Gross National Product (GNP) and GNP per capita, Gross Domestic Product (GDP) and GDP per capita and per capita income formed the indicators of development is calculated. Therefore, as the GNP and GDP grew and as per capita income increased, development would gradually move or "trickle down" to the larger population and the poor.

Teams of political scientists, sociologists, and psychologists from many of the West's elite institutions tried to draw

contrasts between the "traditional" and the "modern" individual and societies in terms of social traditions and personality traits. Modernization and development meant a move from traditional, community-based societies to ones that stressed innovativeness, education, political participation and access and exposure to information that changed people's way of thinking.

Mahbub ul Haq and Amartya Sen, a new paradigm on development emerged that looked at the process of development through a more people-centred and humane approach.

Human Development Report 2010 stated that:

The past 20 years have seen substantial progress in many aspects of human development. Most people today are healthier, live longer, are more educated and have more access to goods and services. Even in countries facing adverse economic conditions, people's health and education have greatly improved. And there has been progress not only in improving health and education and raising income, but also in expanding people's power to select leaders, influence public decisions and share knowledge.

The human development approach has changed the way that the world currently looks at development. Development is as much about economic growth which debate on

- Inclusiveness
- Equality
- Quality
- Accountability

Communication and Development

Communication is a process, while technologies are the tools or media employed in the process. Communication has emerged as an independent discipline drawing from various social sciences such as psychology, political science, sociology, economics and development on the one hand; and the technologies, hardware and software on the other hand.

"Development communication" is scholars and practitioners approach which have emphasis on.....

1. General relationship between communication and development.
2. Organized use of communication to meet development objectives or development support communication.

Link between ICT and Development

ICTD is Target 18 of the MDGs that specifically states: In cooperation with the private sector, make available the

benefits of new technologies, especially information and communications technologies. Where Governments that use ICTs can be used to:

1. Facilitate complex planning processes
2. Improve coordination across sectors
3. Increase information sharing
4. Promote outreach and monitoring of services
5. Scale up access to education
6. Link communities to markets
7. Create disaster warning and decision support systems
8. Provide a direct link with citizens thereby ensuring a greater degree of accountability and good governance

Good governance translates to better development outcomes, both at the individual and at the high level. ICTs to help make reliable, timely and accurate information available to the people on the one hand, and to the government on the other, to make good judgements and decision-making processes.

Current Trends in ICTD

United Nations e-Government Survey 2010 shows that governments are ready "for e-government, and has replaced the e-readiness index with an e-government development index. The Survey states that: "More countries than ever before are adopting national e-government strategies and multi-year action plans. From the most to the least developed, countries can be seen responding to expectations that governments both participate in and enable the information society by communicating and interacting more effectively with increasingly technology-savvy citizens. They are ready, and it is their level of development in this regard that must be assessed."

The digital economy is the result of the transformational effects of new General-Purpose Technologies (GPT) in the fields of information and communication. It has impacted all the sectors of the economy and social activities, for instance: retail, transports, financial services, manufacturing, education, healthcare, media and so on. It has implications much beyond the Information and Communication Technology (ICT) sector. In addition, the internet is empowering people in a new and different way to create and share their ideas, giving rise to new content, entrepreneurs and markets.

Digital economy rankings of india in 2010, was 58 with score 4.11 out of 10 from 70 country survey where first was Sweden with score 8.49.

The use of ICTs as tools to improve economies has the effect of providing individuals and systems with a new set of capabilities and competencies that go beyond the immediate use of the tools themselves.

Knowledge Societies

In the Information and Communications Development Report 2009 of the World Bank, it is reported that for every 10 percentage points increase in the penetration of broadband services, there is an increase in economic growth of 1.3 percentage points.

Similar results were found in other studies which showed that an increase in Internet penetration by 10 per cent in emerging economies correlates with an incremental GDP increase of 1-2 per cent.

McKinsey 2011 examined data from the G8 and 5 other countries (Brazil, China, India, SouthKorea, and Sweden) to determine the impact of the internet on economic performance. They calculated that the internet accounted for 3.4 per cent of GDP, and had fuelled 21 per cent of GDP growth in the preceding five years. Internet usage by SMEs was estimated to create a 10 per cent rise in their productivity. It was also observed that india need to be 54% IT services market and 37%of IT-enabled services market expected. 2008

Another way in which ICTs are making an impact on economic growth is in the information technology (IT) and information technology enabled services (ITES) sectors. The market for these services is huge and growing and several developing countries, led by India, have been successful as players in the ITES sector.

The knowledge society is about a society's "capabilities to identify, produce, process, transform, disseminate and use information to build and apply knowledge for human development."

Bridging the Digital Divide

In communication terms, this was earlier called the "knowledge gap" and in the context of current ICTs, is defined as the "digital divide". The term "digital divide" is used to describe the gap between individuals and societies that have the resources to participate in the knowledge economy and knowledge society and those that do not.

According to Chen and Wellman: People, social groups and nations on the wrong side of the digital divide can be excluded from the knowledge economy. The digital divide will not resolve itself; it cannot be left to technological evolution alone.

International Development Frameworks

International Telecommunication Union (ITU) has been engaged in a stocktaking process by providing a publicly available register of activities carried out by governments, international organizations, the business sector, the civil society. Targets for ITU is WSIS agenda which is.....

1. To connect villages with ICTs and establish community access points
2. To connect universities, colleges, secondary schools and primary schools with ICTs
3. To connect scientific and research centres with ICTs
4. To connect public libraries, cultural centres, museums, post offices and archives with ICTs
5. To connect health centres and hospitals with ICTs
6. To connect all local and central government departments and establish websites and email addresses
7. To adapt all primary and secondary school curricula to meet the challenges of the Information Society, taking into account national circumstances
8. To ensure that all of the world's population have access to television and radio services
9. To encourage the development of content and to put in place technical conditions in order to facilitate the presence and use of all world languages on the Internet
10. To ensure that more than half the world's inhabitants have access to ICTs within their reach

Sector development Application of ICT

Indicative list of ICT applications in developing countries and the international organizations involved in

No	Sector	Applications
1	Agriculture & Livelihoods	<ul style="list-style-type: none"> • Tele centres • Information on pricing and weather for farmers • Sustainable livelihoods • Income generation
2	Education	<ul style="list-style-type: none"> • Distance education • Teacher training • ICT human capacity building
3	Health	<ul style="list-style-type: none"> • Telemedicine • Digital publication and online resources • Continuing medical education
4	Business and Economy	<ul style="list-style-type: none"> • e-Banking • International trade • Globalization
5	Media, Culture and Tourism	<ul style="list-style-type: none"> • Digital newsrooms • Culture and culture products • Archival technology • New media formats
6	Environment	<ul style="list-style-type: none"> • GIS mapping • Networking of activists • Environmental protection • Climate change
7	Governance	<ul style="list-style-type: none"> • Online citizen services • Social accountability • NGO development
8	Urban Development	<ul style="list-style-type: none"> • Urban planning • Service delivery • Urban tele centres
9	Rural Development	<ul style="list-style-type: none"> • Rural community networks • Rural tourism • Health care

TECHNOLOGICAL TRENDS

Future technological trends and potential impact on the digital economy are detailed below.

• Cloud Technology

Cloud technology creates value for consumers and businesses by making the digital world simpler, faster, more powerful, and more efficient.

• Big Data

Big Data has been at the core of ICT-led innovation based on measurement, experimentation, sharing and scaling up.

• Internet of Things

Over 9 billion devices are currently connected to the Internet, and this number is expected to increase dramatically within the next decade to an estimated 50 billion to 1 trillion devices.

• Robotics

Robotics is seeing major advances that could result in the substitution of human labour by machines in an increasing number of manufacturing and service applications, as well as in extremely valuable activities such as robotic surgery and human augmentation.

• Autonomous Vehicles

Autonomous Vehicles could potentially reduce the number of motor vehicle accidents and CO2 emissions.

• 3D Printing

3D printing has the potential for disruptive impact on how products are designed, built, distributed, and sold.

• Automation of knowledge work

Advances in artificial intelligence, machine learning, and natural user interfaces are making it possible to automate many knowledge worker tasks that have long been regarded as impossible or impractical for machines to perform.

• Digital entertainment business practices

Data to illustrate how various entertainment industries are changing as a consequence of digitalisation because such things is....

- o Digital music
- o Audio-visual services & Video on Demand (VoD)
- o Online games
- o E-books

Conclusion

The active engagement of international agencies in the use of ICTs for development is now called ICTD. ICTs can be used to provide improved and equitable delivery of services; facilitate complex planning processes and coordination across sectors and enable increased information sharing, outreach and monitoring of key efforts. Governments are now keen to exploit the latest technologies to extend reach and improve the quality of development activities. As a result, there are a range of ICT-based development efforts across the world, both sectoral and based on the WSIS agenda of action.

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