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Paper: Development Communication

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Component II: Description of the Module

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1. Introduction

This module will help you in understanding what is meant by ICT and how it is effective in the development process of any nation. In the 21st century, one of the most popular and widely used terms is ICT. So, this module will discuss the meaning of ICT and its scopes and effects in nation's development. The full form of ICT is Information and Communication Technologies. ICT enables development in several dimensions and sectors and its reach is spread across social development projects to competitive economic markets. In simplified words, the revolution of ICT tools has intense effects on the social and economic growth. What is interesting to note is that despite the tremendous potential of ICTs, their benefits have not been spread evenly. In fact, using ICTs effectively to foster social inclusion and economic growth is among the key challenges facing the policymakers today. But before we proceed further and understand its implications, we will start with the definition of ICT that elaborately makes its meaning clear to you.

2. Definition of ICT

A number of definitions of ICT are in circulation by social scientists but here we will be discussing some basic definitions that will help you in getting a thorough understanding of ICT and its functioning. In simple words, information and communication technologies are defined as those tools that enable the process of communication and transmission of information through electronic means. Thus, the broader definition of Information and Communication Technologies encompasses traditional technologies to the most modern form of technologies. The tools of ICTs range from radio, television to telephones, mobile phones, computers and last but not the least the Internet. So, basically ICT includes all electronic networks, software systems, communication devices and applications that leads to increased information transmission within no time and reduced costs. For example, we are able to communicate in real-time with others across the globe using information and communication technology tools such as instant messaging, voice message, video-conferencing and much more. We all are experiencing it in our daily lives on a regular basis. It is undeniable that in the past decade ICTs have provided us with a vast range of new communication scopes. Rapid innovations in the technological front are making ICTs less expensive and easier to access, so in a way bringing the power of ICTs within the reach of a bigger number of people.

3. ICT in Development

Now, coming to the discussion of how ICT can contribute to the national development. But moving on further, it is important to understand what development means. Development can be understood from various perspectives and one of them is human development perspective. It takes place when a democratic society is marked where people are free to make choices about their standard of living, health, education and better participation in governance. One example can be cited here that ICTs offer a source of employment for a number of people which in turn increases capital accumulation of any nation. It proves that the adoption of new technologies helps in improving the overall conditions of individuals leading to larger goals. Thus, ICT can very efficiently support development if implemented to address the challenges and conditions at the grass root level through access to knowledge and skills, healthy competitiveness and new markets. Research scholars across the globe are coming up with works on ICT, its potential, benefits, effects on various sectors of human interest. But what is needed to be understood at this stage is how ICT can enable development. In the following paragraphs we will be broadly conceptualising the use of ICT in various sectors.

It must be mentioned here that the concept of ICT and its role in development is quite broad. It addresses the elements of social, economic and political for the overall improvement of lives of people. In the literature of development communication the tools of information and communications technology have been identified as having the potential to facilitate national development. But, at the same time ICT has been theorized mostly as a massive standardized unit of development communication. So, in order to understand the scopes and manifold impacts of ICT in development process, a conceptual clarity in this context is needed. The advancement of modern information and communication technologies has transformed the world into a 'global village' as it overcomes the geographic boundaries and creates opportunities for a global marketplace. Technological transformations are entwined with globalization and combined they are leading to new realities of global economy.

The implication of Information and communication technology and development is interlinked. In other words, ICT symbolizes the opportunity that globalisation can offer to a developing nation. It plays an important role in the creation of information infrastructure. One good example here in this context can be that ICT based

education. This mode of education offers opportunities to those who because of various reasons cannot go to educational institutions. The ICT provides scopes of open access and new means and methods of delivery of information to students. Besides this, ICT is also creating opportunities for the poor and needy. When talking about the poor, it is an inevitable fact that poor across the nation are isolated from any kind of information or technological revolution. As you are aware that there are differences in economy and access to technology also depends on this factor. People with higher income admittedly have greater access to technology. Here arises the concept of digital divide, which is also a consequence of differences in economy. But, as access to information and technology is seen as first requisite of development process, the main question that comes to mind at this point is how ICT can be key pointer towards a developed society where there already exists a gap in terms of capital. So, for becoming relevant to the poor and underprivileged people, ICT tools must be made available as per their requirements, say for instance, in local language and through community sharing and participation. So, before initiating ICT projects or frameworks for the betterment of the poor society, a thorough assessment of the needs of the poor must be done. Further, the level of scope of ICT in development of any nation is largely interconnected with its overall economic growth.

3.1 ICT and its possibilities in different sectors

Some explanations of ICT describe it as a substitute for human labour whereas some describe it as an extension of human labour. However, in the process of development the complexity of these issues needs to be addressed. So far, as we have understood that ICT can increase information flow, increase productivity, and also possess the capacity to alter social relations. The potential of ICT has not only increased the diffusion of mass media but it has also made possible in the creation of new opportunities to develop communication framework at the local level. Examples of such enhanced communication through mobile telephones are the establishment of “telecentres” in rural India. There are arguments that poor countries will never be able to manage a phone per person. Well, it sounds very real but social science scholars suggest that the solution to this problem is not complex. As just now we have cited the example of telecentres in rural places where the fixed cost of ICT provision can be shared by several individuals. What is important here is how the reach of technology can be expanded. Of course, there has to be regulatory mechanisms for functioning of such tools. Available literature examined the explosive

growth of telecentres in India. This was one way of maximizing the ICT access in India, considering majority of its population reside in rural areas.

We have briefly addressed the issue of rural areas and role of ICT in the above paragraph, similarly technology applications in other sectors will be taken one by one. ICT is characterized with rich and multifaceted nature and thus for understanding its scopes and interventions on development initiatives we will be discussing its applications in other relevant sectors that contribute to the development process of any nation. Secondly, to know the true potential of ICT, it must be conceptualized along different views (or sectors).

ICT and Education: ICT offers powerful and cost effective tools for the expansion of education and knowledge. If implemented properly, ICT applications possess the power of fundamentally transforming the nature of imparting education. Traditional teaching learning methods can be made interesting and interactive through virtual classrooms and online courses which also have a wider reach.

ICT and Economic Growth: ICT can foster economic growth by providing new opportunities of import-export services, globalising of local markets for reaching a global audience. Let us explain this point more elaborately. For example, In India, the handicrafts industries can reach to an audience globally through promotional websites making marketing and distribution much cost effective and easier. Further, ICT application allows the expansion of banking services and digitization of finance networks.

ICT and Health: ICT can also improve the healthcare services by providing possibilities of remote consultation and treatment opportunities. ICT enables better medical training scopes for health workers. ICT reduces the costs of exchanging and storage of information and data. History of media points out that Radio and Television have been effective in disseminating of health awareness related message in rural areas. ICT tools can also be used in the same way and there are instances from several developing nations where ICT is used to monitor health checks and initiate mass vaccination.

ICT and Poverty Reduction: ICT tools can be innovatively used for the benefits and welfare of the poor. This subject has been the growing experimentation and debate among the international academic circle. The ICT applications must be made

accessible to the poor. It is not that they don't have the knowledge and communication needs, they have equal needs just like other people; the major gap here is their needs are required to be addressed. Without addressing these issues, ICT attempts at securing equal financial dividends will not be successful. At the same time, it is also equally important that the experience and knowledge of the poor are not ignored. ICT can empower the poor to voice their opinions, make their own choices over their lives and demand their much deserved rights.

Besides the above mentioned areas that are discussed, there are plenty of other areas too where ICT can play a major role in bringing a transformation and positive change. For instance, ICT can empower the citizens for making contributions towards sustainable conservation of environment. Moreover, at the national or even at local level, ICT can help in improving the governance through increased accountability and transparency. The online forums and grievance cells offered by the ICT enhanced governance is very relevant as through that platform people can share as well as exchange information and can also organize global level movements against evils like injustice or exploitation.

What you have learnt from the above mentioned cases is that any nation can gain when ICT is used as an enabler for development. Such is the impact of ICT that no area can remain untouched or unaddressed.

3.2 ICT in Developing Countries

As mentioned earlier that development can be defined from different perspectives. According to the modernization perspective the crux of the problem with developing nations is that they lack the resources or knowledge to come of the out-dated means of production. ICT can act as a catalyst and if the developing nations properly utilize the power of technology they can be at par with the developed nations in terms of skilled workforce and economy. An improved information and communication technology infrastructure can play a significant role in drawing attention of international private ventures. Since the 1980s there have been huge advances in the ICT field and with the convergence of media the phenomenon of multimedia emerged. Developing countries like India have tried to introduce these advanced technologies in field of education, agriculture and rural market. Well, monitoring the impact of ICT in all these fields is still an on-going process yet it can be said that technology have brought considerable changes in the not-so-industrialised countries.

Just like other sectors, economy is one of the driving features of analysing a country's development. So, here we will be discussing a three dimensional approach in terms of market economy that can describe the potential of ICT in any nation's development. Every thread is correlated in the concept of development. Firstly, ICT can lead to the growth of employment opportunities and improve the limited human development index. Secondly, ICT can help bring in a revolution by exposing the flourishing indigenous markets to the global arena. Lastly, ICT can empower the poorer people by redeploying the human labour to more efficient tasks and making the welfare schemes transparent for proper rendering of the benefits of such programmes. These opportunities were perceived in one of the Human Development Reports by United Nations (Chandrasekhar, 2001).

The introduction of personal computers and its leading to the increasing demand for software and hardware applications propelled the developing nations to adopt the related ICT policies. One of the widely accepted facts is that 'information poverty' is a significant problem in developing countries. As is clearly indicated by the name itself, information is basically dearth of trustworthy information vital for effective functioning of both governments and private entities. To a great extent the importance of ICT lies in its capability of knowledge support. It is not always the case that the aims of any developing nation and ICTs are essentially needed to be framed in terms of accessibility to information or technology. Further, it is equally understandable that the most critical of problems at the national or local level call for technical support. So, a very clear concept about such minute yet vital distinctions while defining the development process and ICT is required.

If there are opportunities, there are bound to be challenges as well. So, when we are discussing the advantages and possibilities of ICT in the development process, we must also take into account its downsides too. Undoubtedly, there are challenges and doubts about the effectiveness of ICT in the process of development especially in a development country. ICT plans and policies are formulated but from the technological point of view, the proper implementation of such plans is a matter of concern. For instance, there are places with lack of phone or no phone or electric lines. Further, places with technological services cannot assure regular maintenance. So, how does technology fit in there? If technological support is a requirement for people in developed countries then it is more than a compulsion for people in developing countries where illiteracy and poverty ratio is higher. Moreover,

the majority of the nation's poorest people live in remote rural areas. In such circumstances, the constructing costs of ICT infrastructure would be exorbitantly high or to say not commercially viable. It is equally true that poor people who live in urban or semi-urban areas mainly live in slums that are characterized by poorly serviced public infrastructures including not only telecommunications but also basic amenities such as water, sanitation, power, etc. Further, a basic training is needed and some knowledge of language is necessary for using the ICT tools. These elementary yet fundamental issues have to be addressed for bringing transformation in its truest sense.

In this context, you will be given an example of a case study of the past decade of 1990s (since when the information age gradually started) for having a clear idea. This particular case study on the nature of the information society that existed in India was carried out in the city of Bangalore in 1994 by Shirin Madon (Madon, 1997). This study aimed at contributing towards how the process of globalization was affecting life and analysed the information structure that existed in India by considering national, regional, and local contextual factors. The study observed a lack of strategic direction from the government and inequality in development planning at the local level, growing poverty, social disparity that blocked the interventions of the new information systems meant for rural development planning. The study showed a striking contradiction where ICT had enabled the overall development of the city making it one of the leading business hubs of India, yet had very limited impact on marginalised and poverty issues of the region.

As we have discussed earlier that ICTs have remarkable prospective of improving the lives of the poor and marginalised communities and of decreasing the chances of vulnerabilities against them. Nonetheless what we understand from the above case study is that ensuring equal access to ICT for all despite of their social class is a continuous challenge literally for every developing nation. So, what we have observed is that India is gradually becoming part of the information concentrated global economy yet there are major social challenges that need to be properly recognized for a complete development. From all these observations here we can say that for introducing development oriented projects involving ICT it is equally important to consider the social, technological and cultural contexts of the concerned society.

4. Summary

The core aspects that you have learnt from this module are that the revolution of ICT has opened up new diverse possibilities of economic and social transformations that will benefit the development process of any nation. The ease and reasonable way of accessing the ICT tools have contributed to the increased popularity of ICT. ICT is much more than the social networking sites and it can be sensibly used to promote the various aspects of development. We have also discussed how for overall development of any nation, it is vital to address the basic critical elements of the equation of development like healthcare, preservation of environment, natural resources, agriculture, education and poverty reduction, etc.. Thus, we can conclude by saying that the provision of social, economic, and participatory environment in which an ICT based application can be implemented for development is as important as the ICT tools themselves.

