

ICT to Empower People with Disabilities: Exclusion to inclusion

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Abstract— Each and every life has a death as do every human. But death before dying is something that one can never compare even with their deepest pain which is not expected in any person's life, does not matter he or she is disable or not. We know that this does create confusion but in developing countries almost all the people with disabilities face that phenomenon in their every step of life. Even in this modern era of science and Information Communication Technology (ICT) where people are thinking of creating Artificial Intelligence with no fault, establishing Human Society in moon, under the sea and in other planets, people living with us are not getting their basic needs especially people with disabilities are mostly neglected among them. But the problem is if our invention cannot help us to improve the lifestyle of disable people, if it cannot help them to lead a normal life then are we really in modern era of Science and Information Communication Technology? It is hard to judge us on the basis of these emotions as many of us working with people with disabilities without any return of investment and selflessly but somehow many of their approach is not in right directions. Here we have tried to address all those facts and we will also try to find out where the lacking is and what we can do to help them.

Keywords: ICT, HDI

I. INTRODUCTION

Population is both a problem and strength for developing countries. A developing country, also called a less developed country or underdeveloped country, is a nation with an underdeveloped industrial base, and a low Human Development Index (HDI) relative to other countries¹. In developing countries people with disabilities are a curse and burden on the family, society as well as on the country. Most of these disable people do not get proper

education, social communication, treatment, care, sometimes even not their basic human rights. In a line they are deprived from every aspect of life which a normal person should get. However, Information and Communications Technology - or Technologies (ICT) can be a solution for them to lead a better life. ICT to empower people with Disabilities in developing countries can benefit disable people, their families, society and as well as the countries. Disable people will be able to have a socially good life, be a part for the betterment of country's financial problem with proper ICT help if provided in a right manner to them. ICT could empower disable people to earn from home which will help the others to consider disable people as an asset not a burden. It will help to increase their communication skill and link not only locally but also globally.

II. ICT, CURRENT STANDINGS OF DISABILITY AND THEIR IMPACT ON ECONOMY

“ICT (information and communications technology - or technologies) is an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as videoconferencing and distance learning”². In a context we often use the term ICT, such as ICTs in education, health care, or libraries but not in to empower the people with disabilities. It is the kind of tool that can change the economy of developing countries very easily but most importantly developing countries can solve their poverty and the problems with disable people with the help of ICT if properly guided.

A World Health Organization (WHO) and World Bank figure tells that, 15% of the world's populations, about 1 billion people, are disabled. Most alarming news is that as there are almost no data collections on disability hundreds of millions of people with disabilities are living in developing countries remaining invisible from the world. Under the UN convention definition of disability on the rights of persons with disabilities encompasses a wide range of impairments which includes physical, intellectual, sensory, and mental health but most of them with a common experience of exclusion and stigma. Earlier in a report in the year 2015, the chair of international development committee, Sir Malcolm Bruce, said: “Disabled people in developing countries are the poorest of the poor, if we are serious about tackling extreme poverty; our development work has to target them.” Figures from University College London suggest that 80% of the world's disabled people live in developing countries. According to DfID (Department for International Development) research, those with disabilities are more likely to fall into poverty and face discrimination.

On the basis of the above facts if we do a little bit of mathematic then we can find that 0.80 billions of disable people live within the developing countries, where most of these people with disabilities rely on their friends and families to support them financially and by all other means. But what if all of them starts earning 1\$ every day giving us a total of twenty four billion dollars (2400000000 \$) every month and two hundred and eighty eight dollars (28800000000 \$) per year which is a lot of money for a developing country. Currently this large number of population is not helping to cause of their country's economy at all which can be changed by the help of ICT.

III. ICT for People with Disabilities: Developed Countries vs. Developing Countries

ICT is the greatest wonder of this modern era with which we could do almost anything by sitting still in a single place. There are a lot of ways in which ICT can be used for the betterment of life of people with disabilities which is already used by developed countries. According to the United Nations Educational, Scientific and Cultural Organization (UNESCO) 90% of children with disabilities in developing countries do not attend school but it is not the case for developed countries. This is where e-learning can come in handy and more successfully applied by most of the developed countries and as a result making their disable people educated with more ease. As we all know education is the backbone of a nation, if we can increase our literacy rate we can increase the chances of our success also. With the help of e-learning children could learn easily by staying in the home and communicate with other students and teachers with the help of different social sites like Facebook, Skype and others as they would need a full-time care. Now in this particular scenario it is not actually that simple as simply we have told the solution for developing country like ours because disabilities is not only one kind, some of the children are blind, some cannot speak, some cannot hear, some cannot walk, some are might not be able to write and some are may be mixture of many disabilities and so many others which we are may not even discussing. But our goal is to maximize our thought so that as many as possible can get this e-learning as a helpful medium for their study. Now a normal e-learning system is not sufficient for them. We could develop some sort of e-learning site which may will be a combination of digital visual effects which might help those who cannot hear, digital audio effects and libraries which might help those who cannot see and others can enjoy both of them. But at the same time, we have to make sure that they are learning as the normal people are learning as they have to compete in the real life with all of us to establish them.

For people with disabilities we can teach them how to use Internet with the help of which they can do jobs online which will allow them to earn from home, making them not a burden anymore but an asset, they can also communicate with others with the help of Internet which will definitely increase their confidence, give them a satisfaction about their life and making them more and more communicative and it will also give them the feelings that “I am also important”. With these change of mentality, they will be more and more productive for the economies of the developed countries. If we look at the developed countries then we will see that Internet is available for all of them with a very low cost and they have special sites design especially to support the people who have at least some kind of disabilities where they are able to find all kind of support whichever they need. But in developing countries we may find some NGOs who is working for them but that too is not available all the time and not in everywhere for our lack of data and internal communication.

People in Developed countries are very much conscious about the fact that how to look after the people who have disability which is a big concern for developing countries. As our society are not much aware as the societies of developed countries, so we need to learn more about the disable people and which ICT to help a particular kind of disability as every disability is not fit for each ICT tool.

Smart phone is another blessing of ICT which can be vastly used for the people with disabilities. For example, think of a disable person who cannot talk at all, now what if we build an app which can be his or her voice, speaking whatever he or she want with only a click of a button. Think of a blind person who has an app on his or her mobile which is guiding to a destination with the help of GPS, is telling what he or she must do next. People who cannot hear we can develop such an environment where he or she will be able to have a visual which will help to understand what the others are talking.

IV. DILEMMAS AND THEIR CURE

We know that these are promising thoughts that can bring social and economic success for the developing countries and by which humanity will prevail once more but as all good things have some backend problems so do our thoughts. As we are talking about developing countries most of the people are ignorant and unaware about the people with disabilities. They do not think at all about what happens to them. Beside this it is also a long process to make the people with disabilities eligible to show us what they are capable of as

they have to get used to it first and also learn properly for which a question rise that is, how long they can be clam and helpful, not only them but also the others those who will be related to these such as their friends, families and the other parties who will come forward initially to help them. The biggest problem is that ICT is very expensive which makes it more difficult to make it available for the people with disabilities even if we make them support us willingly in developing countries.

As this is also an issue of humanity so we all have to look at it with seriously, increasing social awareness so that all of us in the society help the people with disability so that they become a proper asset for the society. As for the high cost ICT we guess governments, NGOs, organizations, private sectors and all of us have to work together for the betterment of the people with disabilities with helpful behaviors, money, support, patients and all the other way which we can.

V. CONCLUSION

While studying ICT to empower the people with disabilities we tried our best to bring out all the methodologies that we can establish with the help of ICT tools that is available to us right now. ICT can help us to provide them a life which will be more suitable for them as they are leading right now but for that we need to learn about different kinds of disabilities and to identify the impact areas of ICT so that it becomes helpful for a specific learners. We present current available ICT tools and areas, low tech aids to help us to focus on disable persons of all age. We also shared some idea of special software to help the people with disabilities. But as we are talking to establish these things in developing countries we have to ensure that all students with disabilities have access to a free public education that will help them to emphasize some special education design for them which will help them to prepare themselves for further education, independent living and employment. We also should take steps so that no disable people have to pay for these. At the end all we can say is that, "People with disabilities are also human. They also have dreams. They also do want to lead a normal and happy life as all of us. If ICT can empower them for doing so then who are we to say no? We should look deep into our soul to find our humanity and help them with all our might."

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