

TECHNOLOGICAL INTERVENTION FOR SOCIAL INCLUSION: A DISABILITY PROSPECTIVE

Dr. Monika R. Seth¹, Dr. V. H. Asudani², Mrs. Naina Jagyasi³

^{1,2,3}Assistant Professor, Dept. of Humanities,

Shri Ramdeobaba College of Engineering and Management,

Katol Road, Gittikhadhan, Nagpur (India)

ABSTRACT

Right from the discovery of wheel to the discovery of super computer all technological inventions have aimed at alleviating human suffering. Technology enables human beings to perform functions effectively bringing out economy of time and energy. The wide spread use of any technology by the majority members of the society bring down its cost and in the process facilitate its innovation. In the process of development of technology a little attention has been paid especially by those who matter for the designing and innovation to make the technology universally accessible. The democratic spirit which is the only guiding principle for the progress needs to be extended in the technical field as well. This paper critically looks at how technology has enabled the disabled to be the part of inclusive development. It has also thrown light on contrary development that is how some of the innovations instead of promoting social inclusion have strengthened social exclusion. Innovations of technology are not only to be viewed as technical and commercial process but it is essential to be regarded as the process of social improvement. It is imperative on the part of technocrats and the scientists to be aware and sensitive of its social implications regarding the innovations and discoveries that they are associated with.

Keywords: *Differently Able, Innovations, Social Implication, Social Inclusion, Technology.*

I. INTRODUCTION

Right from the inception of human race till date physical human potential has remained relatively stable. In some cases, owing to the increasing use of modern technology, original human physical potential has shown the signs of decline. Thanks to every evolving mental potential and the creativity that has enabled human being to invent and discover newer and newer methods and procedures to not only translate the biological limits of human beings to accomplish physical task but it has enabled the human beings to achieve seemingly impossible activities with the help of modern technological gadgets. In other words, right from the discovery of wheel to the discovery of super computer all technological inventions have aimed at alleviating human physical suffering. Technology enables human beings to perform functions effectively bringing out economy of time and energy. The wide spread use of any technology by the majority members of the society bring down its cost and in the process facilitate its innovation. In the process of development of technology a little attention has been paid especially by those who matter for the designing and innovation to make the technology universally accessible. The democratic spirit which is the only guiding principle for the progress needs to be extended in the technical field as well.

Technological interventions not only contribute to enhance personal effectiveness but they also foster the

process of equality and equitable distribution of resources as technology enables many to overcome their physical limitations. Democratic order is concerned with sustainable development of all the segments of society. Therefore, it is imperative that technological innovations should be used to promote social inclusion. There are certain sections of the society who require some sought of modification in certain cases with regard to design and usage of technology so that it becomes convenient and accessible to them. One of such groups is certainly the group of disabled people. Here it is to be appreciated that inspite of the tall claims of technology that it is easy and convenient to operate it cannot be neglected that majority of the technical gadgets do still rely upon basic ability of senses such as sight, hearing or touch for their functionality. The question that needs to be raised at this juncture is how the people whose senses (eyes, ears or limbs) are impaired are expected to make full use of technology. The point to be considered here is whether the differently abled people should be left out from the general use of technology or the serious efforts should be made to bring about the required modifications in the technology so as to make it disabled friendly.

II. REVIEW OF LITERATURE

1. Robin Peace, 'Social exclusion: A concept in need of definition?' Social Policy Journal of New Zealand 16 (2001), 17–35.
2. Sarah A. Hall, 'The social inclusion of people with disabilities: A qualitative meta-analysis', Journal of Ethnographic and Qualitative Research 3 (2009), 162–73. Hall provides a rare attempt to define social inclusion from the perspective of persons with a disability.
3. Arie Rimmerman, Social Inclusion of People with Disabilities: National and International Perspectives, 2013.
4. Andrew Power, Janet E. Lord, and Allison S. de Franco, Active Citizenship & Disability: Implementing the Personalization of Support for Persons with Disabilities, 2012.
5. Eliza Varney, Disability and Information Technology: A Comparative Study in Media Regulation, 2013.

III. AIM

This paper critically looks at how technology has enabled the disabled to be the part of inclusive development. It has also thrown light on contrary development that is how some of the innovations instead of promoting social inclusion have strengthened social exclusion. Innovations of technology are not only to be viewed as technical and commercial process but it is essential to be regarded as the process of social improvement. It is imperative on the part of technocrats and the scientists to be aware and sensitive of its social implications regarding the innovations and discoveries that they are associated with.

IV. TECHNOLOGICAL INTERVENTION

Technological interventions are not simply the fruits of the self satisfaction of scientists. Every technology has its applied aspect. It can be used for destruction or of development mankind. Emphasis should be on the positive and constructive application of technology. Technological intervention means the effective application of various techniques procedures technologies to intervene with the functioning of human beings in different domains to enhance effectiveness and competency of human beings. In this sense, right from the wheel to the supercomputers is used as technological interventions. Sometimes owing to inherent limitations of technology

or sometimes due to the lack of foresight or lack of will to understand the different needs of disabled on the part of designers of the technology, some technological gadgets either remain partially accessible or become completely out of reach of differently able people, partially or fully depriving them of the benefits and the services which are available to the able bodied. Before embarking on the task of critically examining the role of technological interventions to facilitate the process of social inclusion with regard to disabled people, it is appropriate here to look at what we understand by the term social inclusion.

V. SOCIAL INCLUSION

The term social inclusion is often interchangeably used by policy makers and professionals to mean social cohesion, social integration and social participation, or as the opposite term to social exclusion. It seems that the latter is a contested term referring to a wide range of phenomena and processes related to poverty, deprivation and hardship but it is also used in relation to a wide range of categories of marginalized people and places. There is no doubt that the term requires refinement and a tighter conceptual base.

A meta-analysis of the use of social inclusion in qualitative disability studies found six common expressions: (1) being accepted and recognized as an individual beyond the disability; (2) having personal relationships with family, friends and acquaintances; (3) being involved in recreation, leisure and other social activities; (4) having appropriate living accommodation; (5) having employment and (6) having appropriate formal and informal support. Having understood the concept of social inclusion, it is to be seen how technological interventions bring the disabled into the fold of social inclusion.

VI. TECHNOLOGICAL INTERVENTION, SOCIAL INCLUSION: A DISABILITY PROSPECTIVE

Technology is expected to enhance effectiveness and efficiency of persons thereby increasing their competency in professional and personal life. Very often, technology is designed and developed keeping in the view the able bodied and this intentional or unintentional tendency is responsible for excluding the differently able people from partially or fully harnessing the benefits of technology. It is to be put on the record that this charge is not to be endorsed universally. In other words, all the technological developments are not in accessible to the disabled. In some cases, technology has revolutionized their life, thereby paying the path for the process of bringing them into the fold of social inclusion. Here, in this study, we would make an attempt to analysis the role of technological intervention in the social inclusion with special attention on disabled people classifying the technological interventions into three classes:-

- a. Technological interventions :Fully accessible
- b. Technological interventions : Partially accessible
- c. Technological intervention: Not accessible at all.

6.1 Technological Interventions: Fully Accessible

These technological interventions are those which have not specially designed for the differently able but they can be easily used by them. Many of the technical fruits such as radio, tape recorder, CD player, telephone, belong to this category. Therefore, it would be sufficient here to mention that whatever benefits these

technological inventions have for the able bodied they would have the same advantage for the disabled as well. It is to be noted that in some cases the main stream technology such as radio, tape recorder and even modern digital gadgets have proved more useful to the visually challenged. In addition to their entertainment value the above mentioned gadgets have enabled the visually challenged to complete their education more effectively. They can record the text and listen to it afterwards thus eliminating the need of repeated human help. These gadgets have also enhanced their professional competence as it makes for them possible to retain information in alternative format that is audio format.

6.2 Technological Interventions : Partially Accessible

As has already been mentioned that there is a little conscious effort on the part of designers and developers of technology to take into consideration limitations and needs of the disabled, as a result, rendering some of the technological inventions partially accessible. For example, mobile phone is partially accessible. It is true that the visually challenged person can operate the basic functions of mobile phone but many other functions which are available in the smart phone are not accessible to him. It is to be born in mind here that many of the functions can be operated with touch screen. Ironically enough, touch screen cannot be handled by visually challenged person. As there are no buttons in this type of smart phone, it becomes the guess work for the sightless even if he or she desires to operate such mobile. It is true that the touch mobiles are very convenient and easy to operate but the million dollar question is for whom. If for the sake of convenience of sighted, sightless are excluded from the use of such widespread gadget like that of the smart phone, can't it be called a glaring example of social injustice and lack of social vision on the part of designers and developers of such technology. The same argument is applicable to some of the websites which are not accessible to the sightless even when they use the specially developed assistive technology such as screen readers.

6.3 Technological Intervention: Not Accessible At All

We have little realized that sometimes even the most widely accepted and used technical devices can be completely inaccessible to certain groups of differently able people. For example if an open question is posed as how many of people drive any vehicle on their own in life. The answer will be that majority ranging from 51 to 99 % either no driving or in reality drive vehicles in their lives. Driving has given unprecedented freedom of movement to masses. This freedom if properly channelized opens up limitless possibilities of development and there by helps the hitherto underdeveloped people to come into main stream of social development. Imagine a situation where disabled for their daily activities such as going to school or to their work place have to depend upon someone other to drive the vehicle even when they own that vehicle. To put the matters in simpler words no vehicle has been designed so far which can be driven by the blind or one who does not have limbs. This is disheartening to know that such a widely accepted and used technological intervention as vehicles remains out of the reach of disabled. Consequently it restricts their freedom of movement adversely affecting their pace of development.

VII. LIMITATIONS

Like any other research study, this paper also has obvious limitations. The scope of this paper is to analysis the role of technological intervention in social inclusion only from the prospective of disability. Technological interventions may not be accessible to some other groups such as senior citizens, illiterate etc.

The second limitation of this study is that it has examined the role of only technological interventions in social inclusion. It is to be appreciated that technology is one of many factors that influences social inclusion. Other important factors such as financial resources, education, cultural context etc. have not been examined from the point of view of the social inclusion of disabled people.

VIII. CONCLUSION

No one can deny the crucial role that the technology has been playing and will continue to play to facilitate social inclusion. What needs to be paid attention is how technological intervention can bring the marginalized sections in general and that the disabled in particular into the fold of social inclusion. We must be aware of the intricacy and complexity of the use of technology and its varied impact on different sections of the society with regard to social inclusion. The matter is not as simple as is believed by many who pass a verdict indiscriminately by saying that every technological development is beneficial for all. There is need to develop greater critical insight at the time of designing, developing and promoting technology so that no section is left out. The issue is further complicated when the same technology becomes accessible to one type of disabled and inaccessible for the other. For example, typewriter or computer keyboard is accessible to the visually challenged but not to orthopedically handicapped person.

There have been endeavors on the part of technocrats and scientists to develop what they call it as “assistive technology” specially designed keeping in view the functional limitations of the differently able people so that they can also enhance their effectiveness with the assistance of this type of technology. One of the best examples of assistive technologies is the screen reader software which enables the visually challenged person to have audio output of everything that appears on the computer screen. Thus computer becomes accessible to them. Everyone is aware of the significance of the role of computing technology in development.

We would like to mention with all humility that the purpose of this paper is not to criticize either technology or the developers of it. Simply, we intend to bring it to the notice of all that there is a need to think more critically at the time of designing technology so that its application and usage can be universal. Moreover, there is need to check mad fascination especially in the field of computing technology that in the name of innovation something ill thought out is developed that restricts the use of that technology for certain sections of people. If we call ourselves democratic, cultured and civilized society then so called convenience is not to be preferred to real inconvenience which may adversely affect the process of overall development and thereby creates obstruction in the path of inclusive development.