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Desiderations in Information Technology

Introduction

Today almost every sphere of life has been covered by technology ranging from business to leisure. Our day to day activities are hardly ever carried out without making use of PCs, cell phones, fax machines, pagers and internet facilities and Information technology is no longer limited to computer literacy but has further been used for communication and problem solving tasks as well.

Information technology has fastened the pace of globalization by increasing the bond between countries through making the world's economy to become a single independent system. As time goes by stereotypes and barriers of linguistic and geographical boundaries are soon becoming history and the distance separating countries will no longer have a role to play in the international scenario due to the cheaper, faster and efficient ways of sharing ideas and information amongst nations. With the help of video conferencing and email facilities communication is now done at an instantaneous response irrespective of where one is located on the globe.

Economies are flourishing due to the computerization of transactions which has in turn led to an increase in productivity giving rise to higher profits, an increase in the payment and less strenuous conditions of work. It is now possible to have a businesses operating throughout the week at any time anywhere making it easier and more convenient to purchase goods & services from different countries and have them delivered at the door step. With the IT boom has come an increase in job opportunities due to the high demand for computer programmers, system analyzers, hardware and software developers, as well as web designers.

Drawbacks

Ironically, though the IT industry has made life better it's not short of pitfalls, it has divided the world's population into two: those who are reaping high benefits from technology and those who are completely oblivious about what IT can do for an individual and

nations, the latter category has no access to technology and if at all they do then the much that they know is not sufficient. This digital divide is multi faced and has kept increasing with the bettering of technology.

The technology in Western countries can not be equated to that which is required in developing nations since both have different problems that need different approaches to be solved.

The technology flow from developed to developing nations has its own draw backs, instead of analyzing what poor people need it has begun with technology and applied the same to poverty, hence it has not given poor people a chance to make technologies work for them. Technology cannot be applied successively to the livelihood of poor people without building their capacity to choose, adapt, develop, improve and manage technology sustainably according to their needs and to their advantageⁱⁱ. Information technology should be affordable, accessible and appropriate to all its end users.

Whatever technology that is developed should be affordable to people who live on less than a dollar a day, it should be accessible by marginal communities in developing nations and has to be appropriate in that it should be adaptable to social, economic and cultural needs of whatever society that its aimed at benefiting, it should be capable of being developed and managed by local people themselves.

Local and traditional knowledge is valuable to the poor hence it needs to be protected. This can only be done if local people are allowed to have control over natural resources, for this to work out natural resources should be kept within the public domain more specifically in relation to plant varieties which are developed by poor people themselves. There is a need for alternative property rights that protect communal and traditional knowledge meaning that the WTO's TRIPS agreement should be subjected to serious scrutiny in relation to poverty and environmental impacts.

The IT industry has also not thought of reducing gender stereotypes that have been held for centuries in this male chauvinistic world, it has instead widened the gap by concentrating information and communication technology in urban areas than rural places more so in developing nations where a large number of women fall under the poorest and least educated groups of societies resulting into social exclusionⁱⁱⁱ minus socio-economic benefits that information technology brings along.

Conclusion

Though technology has come in with many advantages care should be taken when it comes to the widening gaps that it has now created. The lacuna in information technology is so visible that it cannot be denied; evidently there is a need to bridge the gap that technology has left between developing and developed nations and also in relation to gender stereotypes. Technology has to be geared towards equality, it should be made in a way that benefits all.

There is a desire for genuine partnership with those whom technology is geared at as well as their local institutions, poor people should be at liberty to identify their technical needs and solutions and further test and analyze technology options that are suitable for them.

Currently the model of technology used in most developing countries is researched and developed far from where it is applied; it should instead be developed where it is used, to make it more effective since all the problems faced will have been taken into account in the process. It is important if technology is developed after considering the needs of poor and isolated communities for instance current Agricultural biotechnology is aimed at medium or large scale commercial farmers in that it encourages single seed varieties, this has been backed up by statutes such as UPOV^{iv} which has a basic principle that does not give an incentive to developing countries it only grants a monopoly to plant breeders and corporate firms in complete negation of farmers' rights. The system is only ideal in furthering and protecting the investment and interests of large scale companies which employ plant breeders.

In Africa just as in other developing nations, small scale farmers are the major producers and play a very important role in developing new plant varieties^v. Therefore patenting of plant varieties only concentrates the knowledge about a particular variety to few people, this is made worse when such a variety, which may be having high qualities is restricted to single use. Currently the availability of seeds is now channeled in a way that they can only be supplied by body cooperates within that field, poor farmers may not be able to access such seeds since they end up being priced heavily. New information remains under a monopoly and may ouster the poor due to the prices that are geared at making multinational corporations richer at the expense of the poor countries.

There is a need for technology to be accessible, appropriate and affordable enough to help bridge the widening gap that is being created continually by technological advancements. Technology should be channeled at benefiting all people be they in urban or rural areas and for it to be effective it should be affordable and appropriate to peoples' needs.

ENDNOTES

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http://www.smallbusinessbible.org/advan_disadvan_informationechnology.html.

ii More information can be got from the article "Technology and the poor,"

http://www.itdg.org/html/whats_new/docs/HDR%20critique.doc

iii http://www.i4donline.net/issue/sept-oct2003/digital_full.htm.-
"Digital divide or information innovation"

iv More specifically Art.91

v This is mostly done through crossing and selection to develop new plant varieties which are then released for use by other farmers, family members of friends