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| **The Significance of Technology in Culture**  **The Cultural Aspect of Technology**  **Fatemeh farahani** |
| Today in many developing countries insufficient progress in science and technology is considered to be the chief reason for general backwardness; on the contrary, many in the industrially advanced societies hold unfettered technological progress as the roots of all social ills.  Is it really possible that all social and political upheavals of the past decades are the byproduct of thoughtless advance in technology? Does it make sense to think of technology as an ‘inhumane force’ that has somehow managed to throw ‘human relations’ into disorder and chaos.  Are we faced with a kind of technological determinism that places man and society in a particular direction with no discernible horizon? Or is it after all possible that technology is independent, neutral and free of any values, whose benefits and faults are chiefly by the use to which it is put by man?  Is it possible for traditional societies to import technology and then try to weave it into their own cultural fabric? Does technology cause alienation? Or is it, as an Iranian thinker has put it, a necessary evil equally harmful in presence as in absence?  Finally, how are we equipped, the people of the Third World, to cope with the great power that technology is? And of course a host of other questions that are fashioned ever anew with respect to technology.  The friction between technological development and the preservation of cultural values, in particular and the influence of the former upon the course of social and cultural changes have been a great source of controversy, the consideration of which is obviously beyond this assignment. Our main objective here is to discuss the cultural aspect of technology and the effect it has had on the cultural identity of the Third World.  Today, human life is an industrial life. In this life which is governed by technical relations, all products are interrelated and interdependent, where the purchase of a product commits one to the purchase of another. Technology advances constantly and rapidly; what has been useful and favoured one day runs out of style next day.  The Evolutionists introduced technology as the major component of culture and put the other components at second place holding that all the components of culture are affected by technology. In this regard Leslie White has introduced the most important theory on technological determinism. According to him not only technology determines the direction of cultural development, but it also determines the need for building social foundation.1 In fact technological determinism assumes that technological innovation is the driving force behind social change imposing its own logic on the social actors and their relations.  Parsons believed that technology is a kind of capability on the part of the organization for a more effective control and necessary change in the physical environment in favour of human needs and demands.2  And A. Reddy wrote, "Science and technology carry the genetic codes of communities where they have been produced".3 Therefore technology is a product of the Western industrialized communities which owe their present position to the attempt made by their ancestors within certain traditional culture patterns. The industrial communities have been organized on the basis of rational management and advancement of science and technology. Therefore any discussion concerning development ultimately leads to the question of science and technology and any discussion concerning these two leads to the question of development. Unfortunately, the sociological dimensions of development, specially the link between culture and development and technology, and technology and culture have not been properly considered. This negligence has led to the conclusion that development is merely synonymous to economic change. Whereas development is in fact a complicated and multi-dimensional process which includes social, political and cultural spheres.  In order to bring about deep economic and social changes and promotion of the living standard as well as filling the gap between themselves and the developed countries, the developing countries are in need of science and technology, and development has become an important factor for industrial and economic progress. But science and technology have not been created and developed in isolation and introduction of any new technology is a cultural phenomenon, directly affecting the cultural values and the behaviour of communities.  Besides, technology is not by itself the basis of progress and development though today the communities which consume more and exhaust nature are considered more advanced and more humanistic. In the public mind, too, development is a synonym for the culture, social and economic, of the developed countries, the owners of technology.  But development by itself is a historical change, that is, the communities move and transit from one historical stage to another. In fact preparing the community for development is a historical necessity, depending on time and place. The pattern of development policy-making in each country is peculiar to that country, but the laws of development are general and comprehensive. Therefore the transfer of technology can be effective in the progress and development of orient communities only when they are in harmony with the social and cultural conditions of such communities.  So, claiming that with mere transfer of technology the Third World will easily develop is an optimistic idea. Since the transfer of technology is a question of establishing a rational balance between world culture and national or endogenous culture. Cultural development is the process of self-sufficiency which, at a macro level, is fulfilled by the community itself and, at a micro level, by the individuals and groups. On this same basis it is directly the result of endogenous cultural creativities against prevalent methods of the transfer of science and technology.  Development is the seed which should be sown in the soil of a country, and should grow there. It is not a sapling which may be brought from one place and transplanted in another place. However, external communication, especially technological devices, will have influence in the growth of this seed.  **Aspects of Technology**  The peculiarity of our era is generalization and similarity of desires and dreams. The mass culture is the shape of the culture in our age. Any kind of production or any kind of technology, as it is introduced to the market, will change shape and undergo numerous changes from one side of the world to the other. A notion has been prevalent that technology is basically immoral, i.e., what is beyond values and the means which can be equally used for either good or evil purposes. However, is technology really culturally impartial? If one looks at technology as a machine and the principle of work the response will be positive, but if one looks at the minute details of human activities which take place in line with the use of technology the answer will be negative. Technology appears as a part of life and not something separate from it. Arnold Pacey in his book entitled the *Culture of Technology* has considered three different aspects for technology:4  1. The organizational aspect, consisting of the activity of designers, engineers, consumers and labour unions.  2. The technical aspect which is a limited concept of technology, that is to say, knowledge, skill and know-how, tolls and machines.  3. The cultural aspect means goals, values and moral rules, belief in progress, affecting the creativity of designers.  He believed that people use technology in its wide-scale concept and sometimes with its limited meaning. When technology is presented in a more limited way, the cultural values and the organizational factors related to it assume for it the shape of an alien factor. In this case technology is known in its complete technical aspects, but in its broad concept it should be considered equal to practicality. In this way it is not impartial and has direct and indirect impacts on values, traditions and the environment.  Therefore, since we know that cultural values are a determining factor in the choice and impact of technology and the latter actually transforms cultural values, how can technology and culture as independent systems be co-ordinated?  Technology is a means for change in the environment in order to make it compatible with necessary and inevitable human needs; and culture is also man’s compatibility with the environment around him and the relation he establishes with it. A direct relation exists between culture and technology and both of these affect the other in a sequential manner. In advanced societies — which are the birth place of technology, it is attempted that social and cultural organization be put in line with technological development.  Ladriere by referring to the vast place occupied by science and technology in the life of modern societies wrote: "the problem that arises is how cultures can accommodate them without going astray, how they can at one and the same time satisfy the requirement in regard to roots and having ultimate aims, and giving science and technology the full recognition due to them." We are faced with two questions: on the one hand we must consider under what conditions science and technology can be integrated into a culture without destroying its inner harmony, and on the other hand we must examine what is meant by the unity of a culture in the circumstances of the world today, epitomized as these are by science, technology and their attendant economic and political phenomena.5  In developing countries especially in traditional societies the situation is considerably more complicated, because technology will be made an alien entity which appears as an independent system in the face of existing cultural systems.  As we know, culture determines the way in which individuals identify and recognize one another within their own social sphere of action and the traditional cultures and value systems on them constitute the factor for social harmony, and give a special cultural identity to the members of a community which, in itself, is one of the needs for endogenous development. In the compulsory process of social evolution and change which emanates from the introduction of values and models of external behaviour inspired by the advent of foreign technologies the cultural system in their entirety are attacked upon. Therefore, the main risk lies in the endangering of cultural identity which is rooted in the tradition of nations and in the issue of preservation of cultural pluralism for the entire human community. For example, the development of communication technology, the ability to record and transmit sounds and images over any distance, and the easy reproduction of these on a large scale, have changed the face of contemporary culture. Mr. Amadou-Mathar M. Bow, in his opening address at the conference on cultural policies in Latin America and the Carribbean (Bogota 1978) clearly highlighted the interrelation between culture and communication. He stated, "the mass media. . . are not culturally neutral." They reflect the thinking, the idea, the values, in short the vision of the world of those who use them when they serve as the channel for transmitting to given region value systems or ways of life which are foreign to the people of that region and cannot be prevented in the end from wiping out the specific values of those people, thus becoming even if unintentionally, instruments of cultural alienation. Other feature of technology is the structuration of social consumption patterns and introduction of a consumer logic into the developing countries.6  Much has been said about the impact of technology on the educational systems of the Third World and also on the aesthetic values. We emphasized mainly on negative cultural aspects of technology. But we live in a world which is reliant on technology where the motivating power of national development constitutes that technology. Although it is recognized that technical devices have been designed in response to the determined cultural needs and their compatibility with the goals of another culture requires great endeavour.  We know that Third World countries are faced with two major crises in the selection of technology :  1. Importation of technology has not brought desirable results.  2. Countries have not succeeded in developing the technologies in conformity with their needs and cultural values.  Main reason for these two crises originates from the fact that promotion of technology in these countries was not an endogenous activity but the vast and uncontrolled diffusion of technical implements. Basically the Third World have three options in the face of modern technologies:  1. Passive posture or total acceptance of technologies without paying any attention to their own endogenous environment.  2. Tendency on relinquishment that is a total dismissal of any type of technology, and  3. Selection of those technologies which have greater conformity with the socio-cultural and economic conditions of those countries.  Selection of an appropriate technology emanates from this same third option. Even though the goal of an appropriate technology is to maximize, the opportunities (positive effects), and to minimize their harms (negative effects). Generally speaking, it is not the inherent nature of a technology but the proportion of the link which that technology is to have with the environment where it is to be used, that becomes meaningful.  In our country too, similar to many Third World countries there exist certain problems which, on account of historical background and continuation, have emerged in the form of a tradition. For instance, we quote here some cases to show as to how our country, by making proper and positive use of technology, has succeeded in bringing about a fundamental change in the ways of the people’s thinking and mentality:  1. Large-scale use of the media technology in order to generalize literacy among the people, and to bring about a change in the educational system.  2. Use of modern technology such as video cassettes to promote family planning in rural areas.  3. Use of long-range television pictures for promoting health care in villages.  4. Use of media and communication technologies for creating understanding among different ethnic groups.  Special attention has also been devoted to the significance of technology, selection of an appropriate technology, and its transfer within the framework of an industrial model. In this case, a section entitled land processing "has been set up at the Planning and Budget Ministry with the following two major goals":Determination of the capacity of various sectors in the country, and specification of an appropriate industrial and economic model. Simultaneous with it general criteria have been set for the contracts in connection with the transfer of technology. A commission has been formed to enforce this legislation. Its main objectives stipulate that the commission will make its best efforts to prevent the import of alien and non-essential technologies in the country, and endeavour to realize this task through the self-sufficiency cells. Much stress is being laid on the role of research and enquiry as the main factor for the attainment of an endogenous technology. Currently more than 60 institutions are engaged in cultural, scientific, social and economic researches throughout the country.  Iran, in its capacity as a pioneer of science in history, and a country which is going through a transitional phase and had gone through eight major political events over the past eight decades, views technology as a positive device in the service of humanity and intellectual development.  Culturally speaking, technology is neither evil nor disastrous, rather it is a means that, if used properly, could bring up the welfare of human beings. By deploying the laser technology we may help cure the eye of a child in a village. However, laser could be used to guide a bomb. We can use satellites for education and intellectual and cultural progress of human beings or we can use them as a means to spread the destructive cultural and ideological patterns. Therefore, if we accept the idea which says, "technology is a means in the service of a superior objective that is the better recognition of nature and a more suitable utilization of nature, and safeguarding the cultural identity as a factor for the solidarity and a requisite for the survival of nation", we have to know that the best technology is not the most modern technology.  Technique produces the need. And Man’s thirst could not be satiated. Therefore our culture necessitates evasion of extremes (to abstain from extravagance) in using the natural resources.  The appropriate deployment of technology should be acquired so that we would not be afflicted with its negative outcome.  By depending on the people’s innate abilities and capacities we should acquire more share in creating and spreading technology.  Safeguarding the cultural authenticity and identity does not mean to go away from the current of technology and/or return to the past and to experience what was already experienced by others, rather it is to go away from the atmosphere of slogans, to harmonize ourselves, and accept the realities of the present world. Protection of cultural identity and reinforcing it are of vital importance. Similarly, technology constitutes the reality of time. Our goal must be to protect our cultural identity by using the gifts of technology and not sacrifice the former for the sake of the latter or ignore the benefits of technology.  **Notes**  1. Leslie White, *The Evolution of Culture*, N.Y. 1959.  2. Talcott Parsons, *Societies*, Engle Wood, N.J. Prentice Hall, 1966, p. 150.  3. *La Culture, Clef de Development*, UNESCO, 1983, p. 105.  4. Arnold Pacey, *The Culture of Technology*, Basil Blackwell, 1983, pp. 8-12.  5. Jean Ladrier, *The Challenge Presented to Culture*, UNESCO, 1977, p. 147.  6. *Inter-governmental Conference on Cultural Policies in Latin America and Caribbean*, Bogota, 10-20 January 1978, p. 72. |