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Science in the modern world is more and more tending towards developing sophisticated technology. Much of the scientific knowledge that is required in the modern industrial society has been used to create an extremely sophisticated technology. It is indisputable that technological innovations have immense social significance. Our way of life and social behaviour are influenced by technologies available to us; from kitchen gadgets to automobiles. The influence of technology on society seems so powerful that some sociologists have adopted a position of technological determinism.

They are of the view that the technology available to the society is an important determinant of its nature and character. “ Technological determinism is an assumption that technology is both autonomous and has determinate effects on society. Technology is seen as political and as independent variable in social change.” There is a strong element of technological determinism in the work of Karl Marx also.

He drew attention to the technologies of economic production that affects the social order. In fact, Marx’s famous phrase – “ the hand mill gives you society with feudal lord: the steam mill, society with the industrial capitalism.” – is sometimes used (mistakenly) as an example of technological determinism. Marx, however, saw technology as intimately related to the social relations of production. Technological determinism is associated with neo-evolutionary theories which give technology primacy in the analysis of social change. Several American social scientists such as Thornstein Veblen (1922) and William Ogburn (1950), have also stated that the specific historical developments and culture traits are the direct result of particular technologies. Ogburn made technology a powerful factor of social change.

He even tried to explain specific social or historical events in terms of suggesting that the self starter in the motor-car had something to do with the emancipation of women in the American and Western Europe.

Similarly, he gave us illustrations of the labour saving devices in the kitchen and the use of new fuels like gas and electricity which reduce the toil of the woman in the kitchen. Ogburn in his attempts to trace connections between historical events and technological developments stated that the invention of cotton gin in 1793 promoted the institution of slavery in America. The cotton gin greatly increased the productive capacity and thus the profitability of the textile industry. As a result, many more slaves were needed to work on the new cotton plantations that had emerged. Ogburn divided human culture into material and non material elements. He stated that normally changes occur in the material culture first.

People accept new tools and implements much more readily than they accept new ideas, values, norms, or institutions. These technological innovations invariably lead to changes in the non material culture. As a result, there is always a cultural lag as the non material elements attempt to “ catch up” with changes in the material elements. Ogburn argued that this culture lag is a continuing source of social disorganisation and social problems. Ogburn’s argument has its own limitations. It is very difficult, if not impossible, to isolate the technological factor from the others as the main cause of social change. Technological change, such as the introduction of cotton gin, always occurs in the context of other changes. Technology cannot operate independently.

Moreover, the precise effect of technological innovation depends on the culture into which it is introduced. Thus, different cultures will accept, reject, ignore, or modify an innovation in accordance with their existing norms, values, and expectations. It is thus argued that the theory of technological determinism cannot be pushed too far.

It is better to see technological innovation as a part of social system along with other elements in society such as religious, political, economy, military, educational, familial, and so on. Technology and the Rate of Social Change: Technology has established itself as a powerful agent of social change. The more the society is advanced, the more it encourages technology, and, as a result, the more it gets changed due to technology. And the more rapid the technological change, the more rapid is the social change that it generates.

Significant technological changes have taken place in the past 70-80 years. For a long period in history, people lived in a world little different from that of their parents. Parents expected their children and grand children to live much the same lives as they did. The traditional societies assume an almost unchanging social world and are typically very suspicious of change. On the contrary, in the modern societies, however, people accept change as the norm. They look for novelty, new experiences and new ventures. People expect constant improvements in their material environment. This fact has been beautifully explained by Alwyn Toffler (1970) in his famous book “Future Shock” .

He has argued that “ we are living in a permanent state of “ future shock”. The future, he contends, continually intrudes into the stability of the present.

Ours is a “ throwaway” society in which change takes place faster than our ability to adjust to it.”“ The technological change has its implications on almost every aspect of society. Some examples may be cited here. 1.

Advancement in the medical field has lengthened life expectancy and brought down the death rate and this has radically altered the population structure. 2. Innovations in the field of industry have turned thousands of workers as unemployed persons. Old manufacturing machineries have become obsolete within a few years. 3. Cultural activities of the people have undergone revolutionary changes due to such innovations as radio, television, cinema, computer and phonograph records. 4.

The socialisation process has become more complex in the modern society. The elderly people can no longer pass on safely the age old culture to their children. Margret Mead hints at it in a curious way. She suggests that “ the pace of technological change is now so great that the old and the young live in quite different worlds- so much so that, in a sense, the parents have no children and the children no parents. For the first time in history, she points out; the old are no longer the main source of wisdom and knowledge in the community.

The young often know far more relevant information about the modern world than their parents. It is, indeed, beyond our imagination to say with certainty about the direction, dynamics, and dimensions of technology. It is bound to grow with ever greater speed. Since technology is a part of society, it is sure to affect and influence the course of our social life. People in the days to

come would find it more and more difficult to adjust and accommodate themselves to the ever growing technology.