1

 **Communications Theory and Cybernetics.**

**Introduction.**

With the advancement of technology, communications engineering developed in the 20th century bringing with it self-monitoring, self-controlling, self-steering automatic processes and equipment’s. These equipment’s began fulfilling the functions of communication organizations and control. This process transformed communication from a social to technological phenomena, Today communication processes can be taken apart, studied and recombined into a more efficient pattern. This science of communication known as cybernetics uses modern technology to map out sequences of actual events.

**Communication.**

Communication is the cement of social organizations and enables society to think together and act together. Communication transmits messages that contain quantities of information. The ability to transmit these messages and react to them makes an organization. The steering performance of the messages is one significant process since it increases understanding of problems in the field. The concept of self modifying communication network or learning net is characterized by the degree of organization, communication and control. Irrespective of the process it transmits messages or carries out its functions. The first relevance is information. Communication engineering transfers information in a patterned relationship between events. The extent of physical possibilities of this transfer corresponds to the extent information unchanging in the physical process by which the transmission is carried on. Thus the amount of information transmitted and information lost helps to measure the efficiency and complementarities of the parts of the channel in relation to other parts. These can be measured, described, and analyzed. 2

**Cybernetics.**

The science of communication and control was a response to technological and social opportunity. Information has physical reality, and can be created, analyzed into discrete units that can be measured, and can also be wiped out. Cybernetics is the study of full dynamics of a system under a strategically varying input. What then is the relevance of cybernetics to political research? Political systems are dependent on processes of communication; therefore resemble certain aspects of man-made communication equipments. Information here is described as patterned distribution or relationships between events. The sequence of such process forms a channel of communication and information is the aspect of the state of description of each stage of the channel that has remained variant from one stage to another. The effectiveness of the information at the receiver depends on two conditions. First, some parts of the receiving system must be in a highly unstable equilibrium, so that the small amount of energy carrying the signal will be sufficient to start off a large process of change. Without this, the information would produce no significant effects. The second condition involves selectivity of the receiver which relates to the richness and specifity of information. Thus information allows the measurement of cohesion of organizations in terms of their ability to transmit information with smaller or larger distortion in transmission. The smaller the losses or distortion in transmission. The smaller the losses or distortion and the less the admixture of irrelevant information, the more efficient is the communication channel upon which political power rests.

Discrepancies between political power and the leaders strength is checked by the middle level of communication and decision. The middle level is that level of communication and command that is vertically close to the large mass of consumers, citezens and common soldiers to forestall any continuing and effective direct communication between them and the highest echelons. This middle level concept permits a simple approach to short run analysis of political decisions in systems, where time and resources for research are limited. In the systems the crucial middle level group without whose corporation very little can be done in the decision system, because they are expected to reflect the influence of others who put them into their positions and be agents shaping the course of events in terms of their desires. In the public sector they are the Permanent Secretaries/Director Generals .military Officers with Command positions, ie Colonel and above, in the 3

Police they are Commissioners and above. Directors of State Security Service. In the media they are the Managing editors. Their crucial characteristics are two;

i) Without them taken all together, little can be done particularly little can be changed.

ii) Each of them must count with the group of his peers with whose support he can win easily, but against whom he is nearly powerless.

Together they form a little universe of political possibilities.

**Political relevance.**

The channels and institutions by means of which a government obtains and uses information concerning its own constituency and personnel, the efficiency with which such information is collected,applied,and stored for future use and records are promising objects of promising objects of comparative studies. The counterpart of this ability is the willingness of the population to accept information and suggestions as mere commands and the researcher can try to find out how the population accepts or rejects political leaders as models. The failure to imitate occurs before the failure to obey, and is predictive of the latter. Voluntary imitation and compliance have a clear bearing on politics. It is possible to use the literature on morale studies in methods and results for studies of behavior of political systems. The researcher may wish to focus attention on the ability of the decision makers in order to predict the kind of and intensity of reaction to their decision by the opponents and passive by standers. The quality of the decision is recognized by matching these two structures and establishing if matching has occurred. The results in feedback are the output energy returned as in put. First order purpose in feedback would be immediate satisfaction of an internal state that corresponds to the concept of adjustment and reward. The second order offers the probability for continued ability to seek first order purposes which is self-preservation. The third order would be a continuation of the process of search for first and second order purposes, by groups of nets beyond the life time of individual nets, that is preservation of the group. The forth order would be the preservation of a process of purpose seeking, that is growth of life and mind establishing order in the universe.

Cybernetics could offer not merely an approach toward a theory of self determination, but also an approach toward a theory of growth of mind of human personalities and organizations. These two concepts are connected, in that an increase in self determination is essential for growth of any system. Growth is the application of learning capacity toward an increase in range, diversity and effectiveness of an organization’s channels of intakes of information from outside.

**Conclusion.**

The cybernetics model studies politics from the point of view of autonomy, steering performance, resourcefulness, power, learning capacity, and self preservation of the system under investigation. Cybernetics studies the facilities of communication and memory available, the machinery for self steering channels of intake and foci of attention of the system. Cybernetics considers what operational reserves are available for recommitment. Cybernetics looks at the major patterns of values found in the political system. Cybernetics also assesses realistically present and prospective decision making capacity of the system.

The cybernetics approach has great validity in determining the extent of political stability and resourcefulness of any system. Its criteria are objective enough to have universal adaptability, although the technological advancement in communication is not uniform, it can still be adaptable in that both social and technological phenomena of communication are involved. Superiority in technological advancement helps only to facilitate the study.

The interesting part of the model is its use of the middle level power of the communication channel in the decision making process. This middle level seems to have universal blessing. It is true that in all state systems, there exists this middle level and their power is felt by the governors and the governed. The middle level group enjoys an unprecedented monopoly in state affairs without being physically involved. Understanding this level, can help in understanding the whole system, be it autocratic or democratic.