Research Paper LibraryScience

Library as a Complex Open System

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KEYWORDS

1. Introduction:
Libraries are very complex organization and are struggling with problem of shortage of funds, staff, space, facilities and material. These problems are further compounded by ever increasing demand for services; both in kind and in degree and they can no longer be resolved in a piecemeal fashion. Again due to the dynamic of fast changing educational and socio-technical environment the demand placed on the library, the use of system was limited until the availability of automated ways of data processing system, i. e. Computer.

2. Subsystem of a Library:
Using one library building a s point for originating the system approach one can proceed upward and investigate how the library contribute to a longer (super social system) proceed laterally and examine its function as part of a regional network of libraries or proceed downwards and examine the subsystem that affects its operation. It is suggested that the downward approach be the first area of investigation for in pyramidal concept. It is best to start at the button and work up. If each small component is doing the job properly then there is an assurance that the entire system is generally healthy.

The function of library are analyzed and coordinated by six basic subsystems which are interconnected and relations between these are also clear:

a) Acquisition Subsystem
b) Technical Processing Subsystem
c) Circulation Subsystem
d) Serial Control Subsystem
e) Reference Subsystem and
f) Administrative Subsystem

3. Library as a Complex Open System:
The application of system approach in libraries is not restricted to management of the library as a whole institution but in fact is perhaps best of providing services when used with myriad of components or subsystem within the library. The library bears the following characteristics by which it is considered as complex open system:

a) Input:
The library receive input from external environment in the form of finance, hardware, software, document resources, human resources in the form of appointment, etc.

b) Process:
Within the boundaries of the library the document resources undergo various technical processes such as classification, cataloguing, indexing, packaging, repackaging etc. The staffs undergo various processes by induction, orientation, training methods etc.

c) Output:
The result of processing is a collection of well organized which makes them useful product or output for the use of library, who visit the library either to seek some specific information or to acquire knowledge about something. The staffs are outputted in the form of retirement, dismissal etc. All these output may be input for other system.

d) Cycle of Events:
The document and information generated by society are added to the collection of the library regularly and work out and outdated documents are discarded as waste product. Users comes o the library and acquired desired knowledge and this result in the production of new knowledge which is ultimately becomes output to the library. Thus a cycle of events goes on in the library continuously.

e) Teleology:
Open system are supposed to purposive or having certain mission or goals to achieve. In case of library, the mission or purposes of the library is well explained by the five laws of Library Science of S. R. Ranaganathan.

f) Equifinality:
Like other system in case of libraries also there are various methods or approaches to achieve goals. Different classification scheme, cataloguing arrangement, automated procedure etc. to achieve the same end result. The end result of all libraries is to provide information services to the user by disseminating the end product.

g) Interaction:
Libraries are always interacts with its external environment is influenced by it and in turn influences it.

h) Adaptation:
Since ancient times the libraries are responding to the changing circumstances by adjusting their courses of action or functional activities to achieve and maintain desirable level of performance to maintain dynamic equilibrium. Libraries continuously check their backside to increase entropy. This is the reason for which nowadays the traditional libraries are moving towards electronic or digital library.

i) Differentiation and Hierarchy:
Libraries like any other open system tends to growth that leads to differentiation of function and specialization with the result that open system becomes more complex and often develop specialized component to perform different function.

j) Negative Entropy:
Libraries like any other open system have natural tendency to decline with age. If any library system unable to respond to the environment directly then no doubt, it will automatically move towards death. An example can be given from the traditional libraries that are existing in these days. If these libraries will not respond to the environment by changing themselves to automated library then they will invite their own death.

4. Conclusion:
The library is a social organization as such it exhibits the characteristic of an open system. The subsystem of any library will

depend upon its growth, specialization and differentiation that have taken place in that particular library. The subsystem aims at interact with each other and environment in such a way that the effect is put in the direction of achieving the central objectives of the library. The central objective is to satisfy the user need.