THE KNOWLEDGE SOCIETY MODEL AND ITS ROLE IN SUPPORTING NATIONAL INCOME AND COMPREHENSIVE PEACE AND SECURITY: (WITH SOME INDICATIONS TO THE ARAB WORLD STATUS QUO)

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ABSTRACT

This paper is based on the UNESCO concepts society of knowledge and the principles of the World Summit on information. It emphasizes the importance of striking out a link between development and values in addition to the optimal use of knowledge in a society to secure welfare, security and stability.

الملخص:

هذه الورقة تعتمد على مفاهيم مجتمع اليونيسكو لمجتمع المعرفة وأساسيات القمة العالمية للمعرفة. وأكدت الورقة أهمية إصابة العلاقة بين التطور والقيم بالإضافة إلى استعمال أفضل للمعرفة لتأمين الخير والأمن والاستقرار في المجتمع.

INTRODUCTION

The accelerating development in communication and information technology besides the colossal progress in the means of transportation have all contributed in the weakening, if not extinction, of the spatial dimension and the maximization of the temporal dimension.The extinction of the spatial dimension virtually means the end of privacy. In the meantime, there will be no elbowr-oom for economic or cultural privacies, not even the personal. Rather, the whole world would look as though it lives in a one village whose inhabitants share rooms without doors.

As to the maximization of the temporal, it draws back the slow or the lagging speedily to the rear by the arithmetic difference between its velocity and the velocity of the others.

The so-called New World Order has heralded this reality and designed to it the so-called globalization systems where no protection exists what so ever, it is just free competition.

This free competition is thought to prevail and have a leverage over everything including economy, culture, creativity and value system and has to be accomplished with the uttermost transparency and accurate data. The winner in this competition is the one who knows. Therefore, people nowadays do not merely speak about the informatics society or computerization alone, as was the case in the past. Rather, they do actually speak about what has come to be known as the knowledge society. However, knowledge per se is more comprehensive and wider than informatics both qualitatively and quantitatively. This is because knowledge is the use of informatics for a certain benefit or advantage, and as benefit is always relative, there must always be a philosophy for any knowledge that helps specify the determinants off benefit and advantage. This definition, in reality, commensurate with the UNESCO definition for the knowledge society as being the society where growth, development and creativity processes depend on the optimal utilization of information and information technology and communication. Yet, growth, development and creativity can never be accomplished without a philosophy that specifies the determinants, priorities and values. With this background before us we can whole heartedly say that knowledge society is the society of those who know, and the one who knows is held to know what he wants and knows how to have an access to what he wants or achieve what he wants and know thereafter how to secure what he has achieved from what he wanted.

Likewise, the one who knows what he wants is the one who holds an idea, philosophy and specific objectives that he wants to achieve in the light of this particular idea and philosophy; and this is what has come to be known as the strategic objectives and plans. Whereas the one who knows how to achieve what he wants it the one who holds technologies, skills and incentives for efficient production and optimal decision. Similarly taken, the one who knows how to secure what he wants it the one who holds solemn human values that maintain security for the individual, the family and the society at large. By and large, the crown of all values in undoubtedly justice in its broadest sense. This is primarily because injustice, as Ibn khuldun said, is a harbinger of the whither away of authority and urbanization. It is important to note that linkage between knowledge, development and justice (or democracy) was apparent in the declaration of principles of the World Summit on Information Society[1], and in many of the reports and research documents of the international Organization, for example the

valuable report of the UN Commission on Science, Technology and Development[2].

KNOWLEDGE DATA

It is certainly true that strategic objectives are not mere hopes so to speak. They are, in fact, scientific estimates based on reliable data and intellectual as well as philosophical properties, and that production efficiency is also based on data about scientific facts, manpower skills, work experiences and spiritual education. There is certainly more evidence that an optimal decision hinges on complete and updated data as well as on rational mathematical modeling. Furthermore, justice itself, broadly defined, be it on the political, social or individual levels, can not be administered without being based on reliable statistics with the widest coverage of all the factors and parties involved, and on specific legal references and well-established traditions.

the data for the scientific estimation exercises, for the purpose of determining the strategic objectives, scientific data for production support; data on human resource, technical expertise, spiritual and educational incentives, update integrated data for decision support purposes, population, security and criminal statistics and data on services, social development and equitable political participation, are all interdependent. In addition we find that information technology that incorporates such technologies as communication, software and hardware and operating skills do all form an indispensable infrastructure to realize the purposes of the data in strategic planning decision support purpose and social justice. The database structure in conjunction with the information technology infrastructure do, in fact, constitute and unified integrated system which is the knowledge system that paves the way for the knowledge society alluded to herein. These issues will be dealt with in the detail in the following pages with special reference to Sudan's experience in the field. But at the outset we begin by surveying the broad lines of a knowledge society model.

KNOWLEDGE SOCIETY MODEL

The knowledge society, as we have seen, is a society with ideal objectives, and idealism, as is well known, is a big-dynamic phenomenon: The more you approach it by more improvement and reform, the more it takes

distance away from you for more and more idealism. This is explained in (Diagram 1) which depicts this phenomenon in the knowledge society in the from of a biological cycle model. The cycle starts with the objectives of the knowledge society to realize welfare, security and stability which will not be achieved but on high information technology and capability to operate this technology with the highest efficiency possible as well as appropriate interaction with the data sets made available through the operation of the information technology. This is to be followed by he capability of optimal utilization of the information and communication for the realization of the highest productivity and optimal decisions that compete in today's world to produce what we may reasonably call the growth, development and creativity society which is shrouded with the values of good governance, justice and integrity that lead to the realization of the objectives of the knowledge society in the fields of welfare, security and stability. Thus the cycle begins anew. The period of this cycle may range from 5 to 10years, even to 20 or 25years or more. The Malaysian Model, for example, which has a cycle with 20years period better known as the (10,10) model for being partitioned into two stages, 10years for each (1982-1992, 1992-2002), might well have been an ideal model. The other model is the Singaporean model with a cycle of 7years period (1992-1999). As to the current Sudanese model, as will be shown latter, it is formulated for a period of 25years. It worth mentioning here that the Sudanese model is designed to be realized at all the levels: the personal, institutional (government and private), organizations and the state levels with special consideration to the uniqueness and specialty of each level when executing the cycle. Of course, at the end of each cycle, objectives will be evaluated to start a new cycle.

INSTITUTIONS OF THE KNOWLEDGE SYSTEM

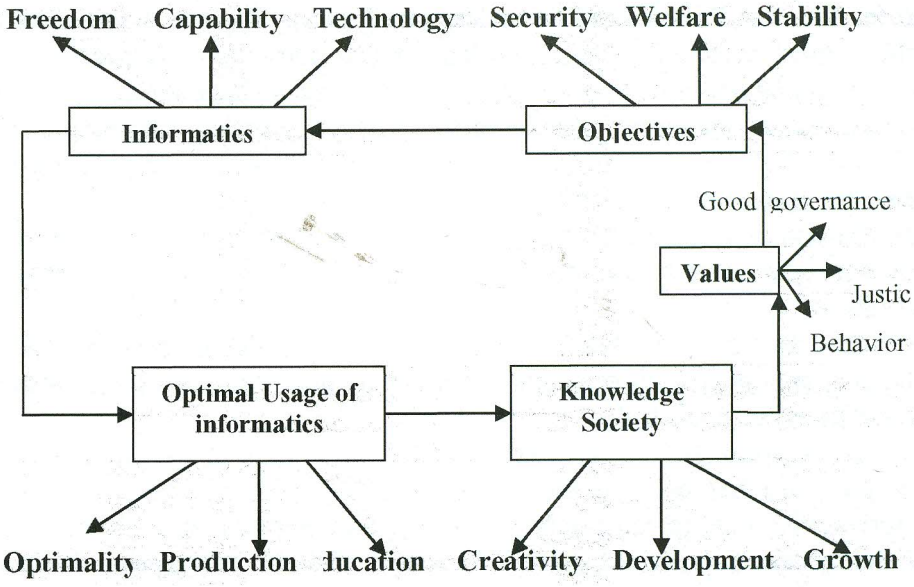
In most countries there are, for sure, special centers for strategic studies that carry out research works, hold conferences and seminars to determine the strategic plans and objectives, in addition to special centers for statistical studies that collect, document and analyze population, economic, social, political, educational, law and order statistical data. Other research centers of applied and pure science also exist in such fields as engineering, agriculture, medicine and health

besides mathematical sciences and informatics. All this research centers perform their works to raise productivity and support the decision-making process.

Likewise, there are other institutions such as specialized schools, universities, training centers, the media and other medium of local and international informatics, besides clubs, mosques and churches do all contribute to rehabilitate and qualify the citizen occupationally, spiritually, culturally and in terms of knowledge.

These sets of local institutions in particular, and the international, in general, represent the ultimate source of data for the knowledge system as is shown in the data inflow model in (Diagram 1).

Diagram (1): A model of Knowledge Society



The major beneficiaries or users of these data sets are definitely the institutions of the State, commercial and production firms, organizations of civil society besides households and individuals. The range of users and beneficiaries extends from the national level to the state, locality, administrative unit, village and town levels. All these institutions from there State level to the

individual level constitute, in reality, what has come to be known as the knowledge society which is the ultimate point in the fore mentioned data inflow model. This widespread and complex utilization of data can never be efficiency realized without the use of high information technology operated by highly qualified institutions well versed in communication engineering, network management, data processing and software production. These institutions may represent data processing institutions in the flow model chart.

EXECUTION OF THE KNOWLEDGE SYSTEM

The very nature of knowledge system is virtually complex and ideal for the following reasons:

First: The system usage base is very wide and characterized by interfacing units among themselves. The units of the system usage base are also interdependent with the source base units. This interdependence does not only presume the possibility and freedom of any member in the usage to have an access to the knowledge made available, but it also permits positive interaction and participation of this particular member in this knowledge by expressing and reflecting his ideas, creative works and values.

Second: The cumulative nature of knowledge and it is accelerating dynamics in tandem with the acceleration of information technology and its widespread utilization.

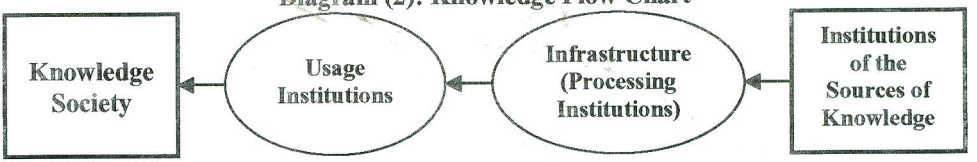
Third: The knowledge system is tenaciously linked with the concept of knowledge expounded earlier in the paper and the ideal knowledge society model explained in section 3.

Yet, complex system need high level of flexibility to handle them, and usually they are handled by the "outside-inside" method. This method is characterized by having sufficient flexibility that permits any subsystem to access the system anytime whenever it is ready without interrupting the other subsystems. This is why this method is being suggested for the execution of the knowledge system. By using this method, the performance of the active and creative will not be negatively affected by the lagging performance of the weak and lazy in the usage base or the source base. In fact, having such a design in operation, whenever a unit gets completed in any subsystem, be it a source subsystem by the entrance of a new research center or an electronic library etc.

or be it a processing subsystem, by introducing new processors or software's etc. or be it a usage subsystem by the entrance of a new organization or a new government institution or new individuals etc. that system will immediately gets into services.

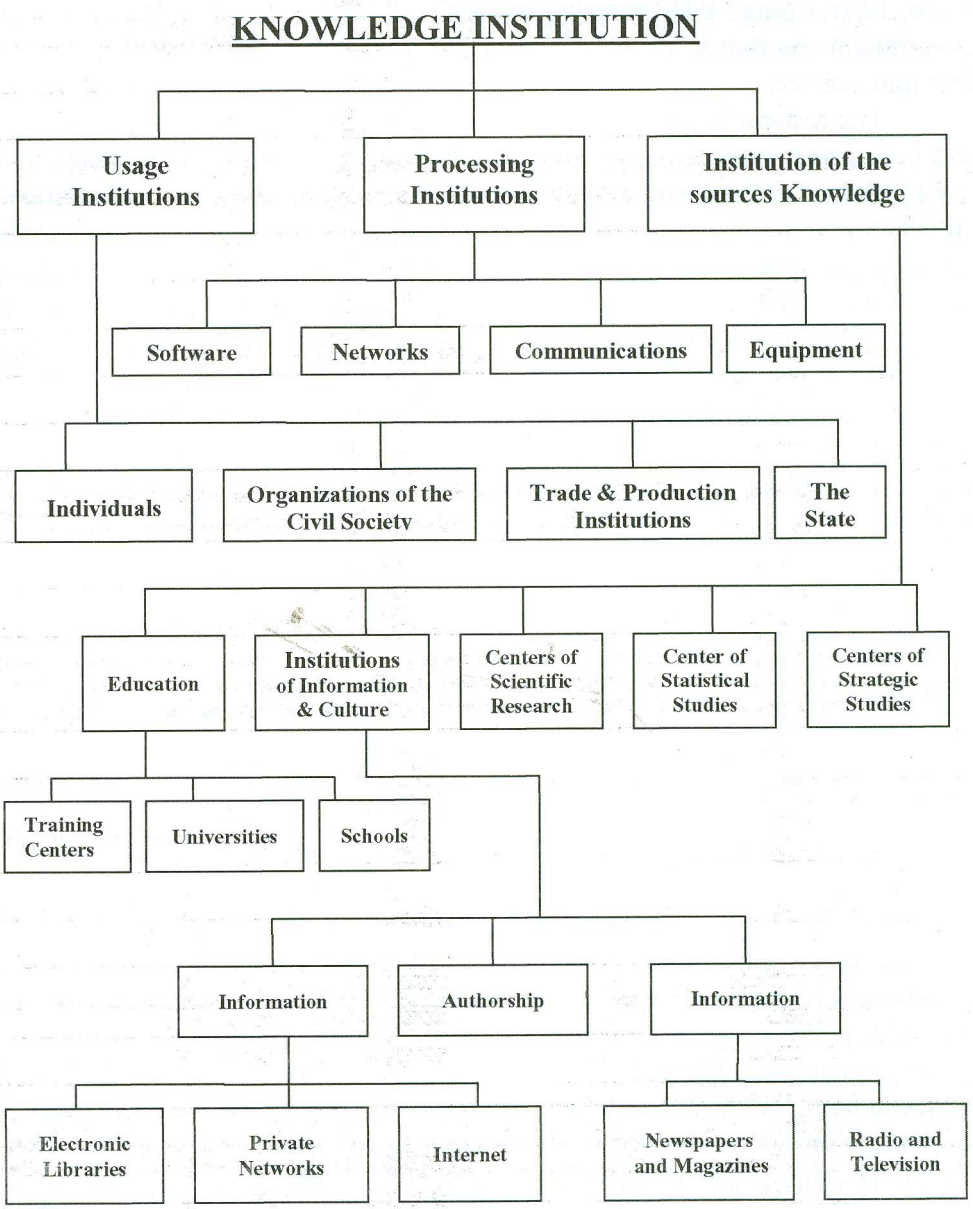
The system begins by putting data source institutions, usage institutions and processing institutions mentioned above, in the form of subsystems under one system or ceiling that can be called, for example, knowledge institution or knowledge organization (Diagram 2). Then each subsystem in this system descends downward from the core level down to the state, locality, administrative unit, village or town, household and individual level in the form of ever-thinning subsystems where an individual represents the lowest subsystem or the basic unit of the system. Many studies and research works have preeminently shown the importance of an independent organizational apparatus for information technology and communication in the developing and less developed world[3]. Other studies have also confirmed the importance and necessity of such an apparatus being reared and supported by the Higher Authority in State[4].

Diagram (2): Knowledge Flow Chart



Should an institution that coordinates and supervises the activities ever be on top of the system, it will help the lagging to catch up with the active and creative by helping him to benefit from the experiences of the latter. It will also help the active and creative by preventing him to commit mistakes committed by others, and above all it serves to maintain a unified rhythm in an integrated unit within the large system and reduces the costs of design, software and repeated mathematical models and makes possible the mutual benefit from the infrastructure. With this conceptualization in point, we can say that the knowledge system resembles, to a large extent, the internet system but different from it in terms of philosophy and objectives.

Diagram (3): Knowledge Institutions System



ACCESS TO KNOWLEDGE SOCIETY

The proposed model virtually leads to knowledge society, i.e the society where every member of it, from the individual, being the least unit, up to the state, being the largest unit, commits itself to the concept of knowledge society: that he wants? How he achieves what he wants? How he can secure what he has achieved out of what he wanted?

The merchant in his shop, the farmer in his farm. The bureaucrat in his bureaucracy etc. all commit themselves to this method , and upon the whole the system realizes the knowledge society which leads to peace, security and welfare state.

UNESCO on its part, has determined four principles to have an access to knowledge society, these are: freedom of expression, freedom and accessibility to information and knowledge and lastly respect of cultural and linguistic pluralism besides availability of good education to all. These principles entail that every individual in the knowledge society must know and have an access to the source of knowledge in this system and benefit from an effectively participate in this knowledge. For example, a farmer can know the most appropriate crop for him to cultivate in a particular season in the light of international demand and prices. Then he must know where to find the best seeds of this particular crop and the best technical packages that he must commit himself to in order to achieve the highest productivity possible, and last, but not the least, he must know the best market for his product. Similarly viewed, a merchant must know how to get the highest profitability possible. To do so, he must know exactly when to purchase, when to sell and from where to purchase and where to sell. As to the administrator, politician, the lawyer or the one who is concerned with the public affairs, he may have an access to the statuses, orders, laws, treaties, constitution and the methods of distribution of wealth and power sharing so that he may demand and defend the rights of his citizens on evidence. As for the intellectuals, elites and those concerned with the folklore, all can express their views, cultures, languages and legacy through the knowledge system. Based on these principles, and accordingly, every active individual in this system must have a computer set, electronic infrastructure and a software. He most have above all, a clear philosophy about what he wants, what his family, community and his state philosophy about what he wants, what

his family, community and his state want, from the level of his residence up to the higher levels of quarter, village or town, locality, state upto the international level in order to qualify himself to be a basic unit in this system.

When we look to the knowledge system from the administrative point of view, and specifically to the relations between the users in this system, we actually look at the relation between an individual and the state, individual-individual, state-state, individual-institution, institution-state relation and so on and so forth, from the lowest to the highest levels including the international level. With this wide view strongly heeded, we began to speak about the concept of electronic government, e-commerce, electronic medicare, electronic education and training and the electronic library etc. These are known as electronic applications which constitute important dimensions of the technology of knowledge society and knowledge system. We must recall here, so as not to get deeply involved in the pure technical side of the discussion, that we must be aware in all circumstances of the values of knowledge society: Justice, freedom. Good governance and integrity.

THE ARAB STATUS QUO

If we look to the Arab status quo from the view point of information infrastructure or knowledge processing institutions we find that the largest digital gap is in the Arab World. To be sure, the percentage of internet users in the Arab world is 0.5% while in the poor South Asian countries the percentage is 1% and 0.8% in Sub-Sharan Africa. On the other hand, the total sites in the Arab world is 0.5% while it is 0.7% in Sub-Sharan Africa[5]. As to the Arabic content in the internet, it could hardly be anything but nil, for it is just 0.07% of all the contents in the internet compared to 68% for the English content, 5% for the Japanese and 2% for the Spanish[6].

This is not to belittle some of the successful efforts made in the Arabic content such as Al-Warrag Site[7], which is one of the largest digital Arabic libraries.

This so far a review of the infrastructural institutions (Processing Institutions). As to the source institutions, the Arab Human Development Report has succinctly Stated that book publishing in the Arab world only 10% of world publishing, bearing in mind that the population of the Arab world is 5% of

world population, the book translated to Arabic from other languages is less that one book per one million persons per year compared to 920 books translated to Spanish[8].

Looking to the situation from the view point of usage and benefit, the same report for year 2002 has argued that there are three dominant characteristics of the educational output in the Arab countries, which are low knowledge attainment, weakness of analytical and creative capabilities and systematic deterioration in the educational attainment. Such being the case, we would never expect high benefit from the information system in the Arab world compared to the rest of the world. For information in comparing ICT indicators refer to world bank website.

These observations, taken together with the high illiteracy rate in the Arab world, absence of intellectual freedom and good governance in most Arab countries and the frailty of economic capabilities (total GDP of Arab countries of $ 600 billion is approximately equal to GDP of Spain alone), reflect the fact that the Arab countries are virtually far away from the ideal model of knowledge society. However, things may not always be that dim. If we come to recognize that the lowest rates of criminal acts, AIDS and psychiatric diseases, stability and social solidarity are undoubtedly in the Arab World in addition to the built-in Arab and Islamic values that used to amalgamate the social fabric in the Arab countries, we would be in a position to assess how far the Arab counties are from the knowledge society as defined elsewhere herein. Nevertheless, there remains a real problem concerning the technological structure, knowledge source and optimal utilization of knowledge in the Arab countries. There is, in fact, a dire need, in the Arab countries, to look carefully to this problem with the uttermost care and investigation for the purpose of finding solution to it[5].

RESUME

In an age of globalization and free competition, the Arab Nation must definitely have something to provide in the fields of cultural and intellectual competition should the nation commits itself with the Arab and Islamic values. It can complete economically with that Allah has endowed it in terms of material bounties and intellectual advantages. The peoples of the nation can be

equitably secured should justice is always put within their purview and effectively and humanely administered. We do believe that it could be done by grasping the scientific methods and firm administrative organization.

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