

## Human Knowledge, Survival Values and Social Order

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### ABSTRACT

*Progressively human society is moving towards what can be regarded as a “knowledge” world. This is a world in which human beings will have to depend on knowledge in the determination of success, survival and failure. It can be indicated that evidence of this abound in various parts of the world, of which Japan and Switzerland are prime examples; both countries, with little natural resources, yet having developed highly advanced social, technological and political systems. Even with the global decline in trade, productivity, economic activities and standard of living, it is becoming apparent that knowledge societies have the potential to weather the storm better than those which are not knowledge societies. It is not that all societies are not knowledge based, but some may be classified as weaker or stronger than others in relation to how they use knowledge to effectively utilize their resources.*

**KEYWORDS:** Knowledge, Society, Countries, Survival, Development, Tacit, Explicit, Technology

### INTRODUCTION

In this essay, I examine the concept of “knowledge society”, with a view to understanding not just the concepts of ‘knowledge’ and ‘society’ as epistemic and sociological ones, but with a view to undertaking an analysis of the perpetual impoverishment of developing societies. For example, in some Caribbean Countries, we find an absence of institutionalized knowledge generating systems or deliberately developed educated citizenry equipped with up-to-date knowledge systems to cope with the challenges of contemporary society. This may constitute the biggest factor in the debilitation of all facets of human existence – creating pockets of poverty in the midst of plenty, feeding leadership with impunity and destroying the society’s capacity for development. I attempt to link the weak knowledge base to naïve survival values which pervade the human existence in the Caribbean as well as other developing societies, impacting negatively on all aspects of social order and cultural advancement, leading to various pathologies such as crime, violence, drug abuse, pockets of religious and political fanaticism, perpetuation of vigilantism as system of justice and various forms of juvenile and teenage despondency in these societies.

### WHAT ARE KNOWLEDGE SOCIETIES?

According to the World Bank Institute, “the capacity to adopt, adapt, and create knowledge is critically dependent on countries’ institutions, particularly investment climate and regulatory framework.”<sup>1</sup> It is often measured by a so-called residual in the production function that cannot be explained by factor inputs.<sup>2</sup> Since the people constitute a great part of these institutions, the framework cannot be sustained if the knowledge

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<sup>1</sup> Kuznetsov, Yevgeny and Carl, J. Dahlman. (2008) World Bank Institute Development Studies. “Mexico’s Transition to a knowledge Based Economy.” Challenges and Opportunities. Washington DC. The World Bank. p 03

<sup>2</sup> Kuznetsov, Yevgeny & Carl J. Dahlman. p 4

base of the people is not first strengthened. Knowledge” can be seen as, “a set of organized statements of facts or ideas, presenting a reasoned judgment or an experimental result, which is transmitted to others through some communication medium in some systematic form.”<sup>3</sup> Knowledge can also be seen as subjective having direct bearing on the individual and objective, relating to the external world in general, the intellectual grasp of ideas and ideologies.<sup>4</sup> Although human actions in different domains of human existence might be different, being predicated on various ideas, sources and principles which underwrite them, we cannot ignore the fact that human action is more often than not knowledge-based. Knowledge, ... no longer consists in a manipulation of man and nature as opposite forces, nor in the reduction of data to mere statistical order, but is a means of liberating mankind from the destructive power of fear, pointing the way toward the goal of the rehabilitation of the human will and the rebirth of faith and confidence in the human person.<sup>5</sup>

Sometimes, as individuals, we tend to question, analyze and interrogate issues and ideas we may have received from various sources, because of the fear of the unknown. At other times we are afraid to question, because we do not believe that we have the capacity and capabilities to respond to some of the very questions we ask. We oftentimes believe that there are certain classes and members of society that are fitting for the particular role to think, analyze and implement; and as a result we step back, leave the quest for knowledge to them and accept whatever the end product is. “Knowledge, we may say, is no longer merely the key to unlocking the secrets of the world, but it increasingly represents the becoming of the world.”<sup>6</sup> Since this is the case, everyone should be proactive in unlocking the gates to knowledge.

To say that one is knowledgeable is to argue that one ‘knows’, as opposed to having an opinion or a belief. Bewaji puts it best when he argues that, ... human beings have not only been concerned with understanding the nature of knowledge, but more importantly, with the important issue of demarcating knowledge from ignorance, mere opinion, conjecture, guess work and even blind faith.<sup>7</sup>

As we work on the development of knowledge societies we need to be cognizant of this fact. Any society striving toward greater productivity, development and the fulfilment of the life opportunities of its members might need to move away from mere opinions and guess work and deliberately begin to make informed decisions, based on a solid knowledge base. Applied to contemporary society and the framework of “knowledge societies”, the critically important question revolves around the issue of: Whether knowledge can provide the principle of social hierarchies and satisfaction for the formation of class structure, for the distribution of chances of social and political influence and for the nature of personal life and, finally, whether knowledge may also prove to be a normative principle of social cohesion and integration.<sup>8</sup>

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<sup>3</sup> Bell, Daniel. *The Coming of Post-Industrial Society A Venture in Social Forecasting*. (1973) New York: Basic Books, Inc, Publishers. p175

<sup>4</sup> Bewaji, A.I. 2007, 31.

<sup>5</sup> Childe, V.G. (1956) *Society and Knowledge. World Perspectives*. London: George Allen and Urwin Ltd. p x.

<sup>6</sup> Stehr, Mejan. *Society and Knowledge*. (2005) New Jersey: Transaction Publishers. p10

<sup>7</sup> Bewaji, John Ayotunde Isola. (2007) *An Introduction to the Theory of Knowledge A Pluricultural Approach*. Nigeria: Hope Publications Ltd. p29

<sup>8</sup> Bohme, G & Stehr. [Eds] (1986) *The Knowledge Society*. USA: Reidel Publishing) p09

From the above one can argue that if knowledge is really a normative principle of social cohesion, human beings need to be fully engaged in the process in order to have growth and stability. If a greater acquisition of knowledge can fulfil all the above mentioned facets within social and political arenas, societies should seek to be more vigilant in developing a knowledge base that will support this type of integration; this is even more important in narrowing the gaps insinuated above, which may lead to the pitting of one group in society against another to create discord. Each society should seek to identify which strategies work best to carry everyone along on the knowledge continuum by reviewing the old knowledge base while at the same time analyzing and determining how to move forward in formulating new knowledge systems that will work for the development of their particular societies.

It might be the case that we are entering a new era or we might just be living in a world that is changing so rapidly, that it is difficult to keep pace with the changes and developments taking place on so many fronts at the same time in the world. There are many terms used to describe this rapid change. Some of them are, 'knowledge society', 'post-industrial society', 'global village', 'information society', 'globalisation', 'information technology age', 'post-modernism' etc. Some of these terms at times are used synonymously, while at other times, they are used as if they are merely interrelated.

In the study of what modern societies should be Daniel Bell (1973) sought to equate post-industrial societies to knowledge societies. As a matter of fact, he argues that these two societies are one and the same. He chooses to label the new emerging form of society as a 'knowledge society', because the constitutive mechanism or the identity of modern society is increasingly driven by 'knowledge'. He argues that, the post-industrial society is a knowledge society in a double sense: First, the sources of innovation are increasingly derivation for research and development; second, the weight of the society – measured by a larger proportion of Gross National Product and a larger share of employment – is increasingly in the knowledge field.<sup>9</sup>

It is true that contemporary society is driven by knowledge; knowledge about human beings and their physical and social environment... The more this knowledge is extended or projected outward, the greater it is for individuals and societies to grow, develop and become prosperous in measurable or visible terms. Stehr argues that, New technological modes of communication and transportation break down the distance between groups and individuals but the isolation between regions, cities and villages remains. The world opens up and creeds, styles and commodities mingle, yet the walls between convictions of what is sacred do not come tumbling down. The meaning of time and place erodes while boundaries are celebrated.<sup>10</sup>

This isolation can only be fixed if each society seeks to use the new technologies as just one tool in the road to knowledge development, with a realization that the creation of knowledge societies require more than high tech computers and equipment. It involves an education and re-education of the members of society on how to manage and use those technologies effectively. It also requires reform in all social, political and economic structures with an emphasis on the individual which will later have a trickledown effect.

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<sup>9</sup> Bell, Daniel. (1973) *The Coming of Post-Industrial Society A Venture in Social Forecasting*. (New York: Basic Books, Inc, Publishers. p 212.

<sup>10</sup> Stehr, Nico. *Knowledge Societies*. Pp6-7

For Lyon, the information society is qualitatively different from the one before post-industrialism and it also takes us beyond post-industrialism.<sup>11</sup> Although some authors use the terms knowledge society, information society and post industrial society interchangeably, we do not believe that a knowledge society should be mistaken for either information or a post-industrial society, since each does not have all the same tenets. For example, Post Industrial society according to Bell is “based on a shift from goods and services production, the centrality of theoretical knowledge both in the development of new technological breakthroughs and professional services, universities as the key institutions and the subordination of the market to economic and social planning based on analytic tool. This concerns the means of production only and can exist in societies marked either by capitalist or socialist relations of production.”<sup>12</sup> Information Society on the other hand is the “society currently being put in place, where low-cost information and data storage and transmission technologies are in general use. This generalization of information and data use is being accompanied by organizational, commercial, social and legal innovations.”<sup>13</sup> While, Knowledge Society is seen as one that uses various forms of knowledge for direct change and innovation. It empowers its citizens with a capacity for intellectual and physical action.<sup>14</sup>

We see that, although some components of each system may overlap, all three societies are not the same. Lyon may be right that the information society takes us beyond post industrialism but it should also be noted that the knowledge society supersedes both. The notion of information societies is limited in that the focus is mainly on development of information and communication technologies [ICT's], internet access, etc. While this is important, one ought to be mindful that this kind of system would mean that knowledge would be developed within particular sectors and classes. If these are not carefully monitored then there will always be grave variations, leading to inequality among the population, especially in a country such as Jamaica where the average farmer cannot even afford to purchase a computer. Within post-industrial societies there needs to be a greater exploration of knowledge in all key areas and functions of its system. While the focus for example may be on “spin off” industries, one cannot neglect the primary and secondary industries. In order for the “spin off” industries to be effective, occurrence in one realm of society has to shape and affect the others.

With the knowledge society of today we cannot leave everything to chance, we also cannot only focus on the traditional ways of doing things; we should be able to think of new ways to move our nations forward. Knowledge is not an entity that is stored for future use, but is rather something that we have to search for. In a knowledge society, the focus should not only be on what can be known, or on how it can be known but also on who can know. If everyone is seen as a seeker and bearer of knowledge, then growth will be inevitable. Nico Stehr argues that, knowledge societies do not come about as a result of a simple uni-modal unfolding of processes of knowledge generation and in an unambiguous fashion. Knowledge societies do not turn into some kind of one-dimensional social configurations. Knowledge societies become similar by remaining or even becoming dissimilar.<sup>15</sup> A knowledge society of today and the future must be dissimilar while keeping some of its tenets.

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<sup>11</sup> Lyon D. Quoted in, Burton Paul F. (1992) *Information Technology and Society Implications for the Information Professions*. London: Library Association Publishing. ppxviii-xix

<sup>12</sup> Bell, Daniel. Quoted in, George Ritzer [Ed.] (2005) *Encyclopedia of Social Theory. Volumes 1 and 2*. Thousand Oaks, CA: Sage, Cop. p 48

<sup>13</sup> Soete, L. Quoted in, Jan Servaes and Nico Carpentier [Eds.] (2006) *Towards a Sustainable Information: Deconstructing WSIS*. Bristol: Intellect. p 5

<sup>14</sup> Jekaterina, Novikova. (2010) *Knowledge Society in Lithuania*. Muchen: GRIN-Verl. p1

<sup>15</sup> Stehr, Nico. (1994) *Knowledge Societies*. London: Sage Publications, 1994. p6

Robert E. Lane envisions what we have in mind when we talk about knowledge society as one in which its members are knowledgeable. According to him:

(a) inquire into the base of their beliefs about man, nature and society; (b) are guided [perhaps unconsciously] by objective standards of veridical truth, and, at the upper levels of education, follow scientific rules of evidence and interference in inquiry; (c) devote considerable resources to this inquiry and thus have a large store of knowledge; (d) collect, organize and interpret their knowledge in a constant effort to extract further meaning from it for the purpose at hand; (e ) employ this knowledge to illuminate [and perhaps modify] their values and goals as well as advance them. The knowledgeable society then, has its roots in epistemology and the logic of inquiry.<sup>16</sup>

One needs to then have a solid knowledge base that seeks to investigate logically and cohesively how each area within society can be developed to effectively meet increasing challenges. Advancement through critical thinking and logical analysis is therefore the goal. In coining this conception of knowledge societies, Lane also made reference to the increase in societal relevance of scientific knowledge. With this, it is inferred that our reasoning should be guided by scientific experimentations and explorations. He believes that this is the way modern society needs to move forward, in order to maintain stable economy and happy citizenry.

Modern society was, until recently, conceived primarily in terms of property and labour. Labour and property [capital] have had a long association in social, economic and political theory.<sup>17</sup> The call now is for a wider use of scientific knowledge, where information is collected and interpreted by individuals, organizations and the groups involved in the documentation, analysis and uses of knowledge. This development of knowledge society while requiring new machinery and hardware; they do not have, to be physical but also speaks to the mental capacity of human resource. As Timo Kauppinen purports, the world is moving more towards the knowledge society where knowledge is becoming the dominant driver of change. This change can be described and symbolized by the growing importance of mental capacity. This is unlike the industrial society where the physical capacity of workers was more important and where the thinking was done by mainly the people in the management and planning positions.<sup>18</sup>

This may move us from just knowing how to knowing why. This may hold true since, it is an integral part of knowledge to be able to give account of what is known and why certain actions are important to development. This will eliminate some of the guess work that sometimes accompanies production. In order to grow effectively, high levels of uncertainty need to be reduced or totally eliminated. This means redirection and re-education both at the individual and societal levels. With knowledge society, what is intended is to bring about a change, not only in the work we do but our attitude and belief toward that work.

Probably we need to approach this knowledge society era in a similar way as Descartes approached knowledge with that quest for indubitable truth or that which cannot be doubted; or as Popper viewed acceptance of traditions. This will mean a deeper reflection on things that we sometimes take at face value. It will also mean a greater investigation into traditions and norms that will work best for us if they are revised to meet the ever changing needs. Sometimes as individuals we may be afraid to challenge and question traditions. As Karl Popper argues, “the anti-rationalists believe that the problem of tradition cannot

<sup>16</sup> Stehr, Nico. (1994) *Knowledge Societies*. Sage Publications. London. p05

<sup>17</sup> Stehr, Nico. p07

<sup>18</sup> Kauppinen, T. Quoted in, Novikova, Jekaterina. (2010) *Knowledge Society in Lithuania*. Munchen: GRIN-Verl. p03

be tackled by any kind of rational theory. Their attitude is to accept tradition as something just given. Rationalists however, are those people who are ready to challenge and criticize everything including their traditions.”<sup>19</sup> That is, they will not submit blindly to any tradition. In submitting and accepting without questioning, it is more difficult to unlock knowledge especially in this dynamic world. Traditional Ideologies may be important to development but societies and leaders should not just accept that these traditions should prevail unless they work to aid future development.

Lane talks about objective standards of development. It should be understood, however, that each country’s development or evolution into the ‘knowledge’ society will be different, as the existing environment and temperament are different. In some societies, the existing knowledge base will have to be totally revised or overhauled and new ones devised or embraced for knowledge society to take effect. This does not mean that societies cannot work together on occasions to achieve the ultimate end as the tenets of a knowledge society will be the same for all. This might mean a greater respect for tolerance for some, while for others it might mean a total revamping of current practices. In other words, there may be a need to work hard to take every member of society along as agents of the needed change.

In order for this development to take place, everyone within a given society that is moving towards a knowledge society needs to subscribe and aspire to attaining a state of affairs that can promote the virtues of knowledge that can be used to aid in the developmental process. As Stehr rightly argues, knowledge has always had a function in social life. One can, therefore, justifiably speak of an anthropological content: human action is knowledge-based. Social roles of all types depend on, and are mediated by, knowledge.<sup>20</sup>

## THE SOCIAL NATURE OF KNOWLEDGE

From the inception of human organisation, known as societies, there have been various classes or social groups. The knowledge base of these groups vary, and this variation has been responsible for the hierarchical structure of the society in which those at the bottom have little by way of benefit from the network of social organization. In most instances, this group of people makes little or no progress in its effort to reach the top, unless deliberate steps are taken by the leadership to facilitate the reduction of the social, economic and political gaps in the society. This slow progression might not be as a result of lack of resources to aid with the progression but a lack of motivation and innovation on the part of those involved – whether at the leadership level or at the level of the poor population.

Plato, in his *Republic*, attributed knowledge to one class of citizens, who, in virtue of its rationality is expected to constitute the ruler ship of society. By the same token, in the in the knowledge society of the future, three classes of people are already envisioned: “the creative elite of scientists and the top professional administrator; the middle class of engineers and the professoriate; and the proletariat of technicians, junior faculty, and teaching assistants.”<sup>21</sup> At best, these divisions are for general categorization along the lines developed by Plato. It is highly elitist and supposes that one could not have a society which is developed to the point where most persons are capable of agency [the capacity of individuals to act in the world].

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<sup>19</sup> Popper, Karl. (2002) *Conjecture and Refutations: The Growth of Scientific Knowledge*. 2<sup>nd</sup> Edition. USA: Routledge. pp161-166

<sup>20</sup> Stehr, Nico. p8

<sup>21</sup> Bell, Daniel. p214

Thus, as noted above, this division becomes problematic when, within each division, we begin to have subdivisions and the knowledge base is not as fully developed as it should be. In order to have a fruitful knowledge society, development has to take place at all levels. Education and training has to be at the utmost, so that everyone will be competent in his/her chosen fields. We cannot seek to develop the class of the scientists, for example, while the other classes remain stagnant. For instance, the Japanese educational system seems to have moved beyond this description of the larger percentage of the population as mere consumers and not agents of knowledge generation and utilization.<sup>22</sup>

In any society, efforts should be made to develop all spheres of the human capital including, the social, political, technological, and economic aspects of the knowledge resources, as each impacts the other. Social groups and social roles of all types depend on, and are mediated by, knowledge. Although knowledge has always had a social function, it is only recently that scholars have begun to examine the structure and development of society from the point of view of the production, distribution, storage, retrieval, consumption and utilization of various forms of knowledge.<sup>23</sup> Even more important is the fact that many societies, having recognized the importance of all kinds of knowledge in the competitive global economy, now take deliberate steps to empower their economies in the creation and conservation of those knowledge.

One facet in attaining knowledge societies is how far a society is willing to go in ensuring that each child reaches a certain level in all aspects of education, including attaining the highest possible level in higher education. In some Caribbean countries such as Jamaica, compulsory education is taken out of context, as this is offered to no further than the high school level.<sup>24</sup> Not only this, some students may be absent from school for extended periods of time without parents and guardians being held accountable. We see children and adolescents being exploited by the same system put in power to protect them. This is evident in various forms of child labour.<sup>25</sup>

The numbers of individuals trained at the professional and technical levels in society are key to ensuring the building of the human capital on which societal development is to be anchored. In knowledge societies, there need to be a vested interest in the most important resource, which are the people. Knowledge societies cannot improve if individuals sit idle without being given the tools they need to understand and respond meaningfully to the world rather than continuing to embrace superstitious, defective, supernaturalist and obsolete ways of viewing the world. It takes time to achieve such a society, and it takes a level of policy commitment, especially, deliberate curricular changes. As Caribbean peoples, we need to realize that these changes might be expensive in the face of competing resource demands. However, there has to be a deliberate effort to confront the challenges, even in a gradual manner. We understand that it will be tedious to undertake this task, the end result may be worthwhile; as all aspects of life will be affected- problems of unemployment, crime and violence may be reduced to the benefit of society.

## EXAMPLES OF KNOWLEDGE SOCIETIES

Raskin argues that the quest for knowledge as such is no longer leading to “progress” or the betterment of the human condition but is taking us in quite other directions.<sup>26</sup> What he attempts to capture is the cynical aspect of knowledge becoming a tool in the hand of various forces of retrogression in society.

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<sup>22</sup> White, M. (1987) *The Japanese Educational Challenge*. Tokyo: Kodansha International. p03

<sup>23</sup> Stehr, Nico. p14

<sup>24</sup> Stone, John Henry. (2005) *Culture and disability: providing culturally competent services*. Thousand Oaks; London, New Delhi: Sage Publication, cop. p89

<sup>25</sup> Hindman, Hugh D. (2009) *The world of child labor: an historical and regional survey*. Armonk, N.Y.: M.E Sharpe. p 232

<sup>26</sup> Raskin G, Marcus & Herbert J. Bernstein. (1987) *New Ways of Knowing. The Sciences, Society and Reconstructive Knowledge*. USA: Rowman and Littlefield Publishers. p 8

He went on to argue that we are in the cave of the shadows and while we sit imprisoned we might address ourselves to certain questions or find approaches to answering them. Questions such as how and through what process are we to know things? How should the scientific, technical and social knowledge processes change when there are political revolutions whose purposes assert equality and dignity for all people, regardless of race, gender, age, religious, sexual or ethnic affiliations?<sup>27</sup>

These questions are relevant to the knowledge society that we all require. Given the way in which technology is now all pervasive in modern society, it may be true that contemporary humans in society are like prisoners and it probably is only through critical thinking and reflective reasoning that we are going to be uplifted and released from these often self-imposed chains. The knowledge society of today may be one medium through which, as individuals, we may begin this gradual progression that will improve all facets of the human condition. It is this level of thinking that has led several countries to rise up from beyond the walls of those caves of superstitious ignorance where poverty, disease and high mortality arising from curable disease prevent human beings from seeing the light which only research, knowledge, science and technology have provided. It is this light that has led to economic, social and political stability for the peoples in knowledge societies.

Several countries have been able to embark on a path to knowledge-based growth. However, the path each takes might be different, as needs may vary depending on where they already are in growth, in terms of scientific and technological capacity, the natural resources they possess, the leadership commitment to democratizing education and the deliberate efforts that individuals are encouraged to make. This will ensure that they are not left behind in the modern information technology age, and each country will also find new ways to have a competitive edge over the others. We see where countries such as the Republic of South Korea, Ireland and Finland illustrate three distinct strategies for upgrading national knowledge system capabilities. According to the World Bank Institute, (South) Korea represents a growth model based largely on diversified conglomerates who took advantage of the protected domestic market, which allowed them to generate surplus capital for investment. This strategy was complimented by an excellent education system.<sup>28</sup>

Ireland sought to take a different approach by basing its developmental strategies on the attraction of multinational corporations, particularly in the electronics and software industries. It shows the deliberate decision of policy makers to encourage the development of knowledge industries in the clear understanding of the resource limitations of the country. Once the basic technological forms had become established in Ireland, the country made a strong effort to create vertical linkages and develop suppliers, first as product suppliers, and later on higher value-added activities such as software.<sup>29</sup>

Finland with its rich forests started doing research and development to further strengthen its strong industries - forestry, pulp, and paper. Based on the knowledge generated from the resource and development activities, telecommunications, design industries and consulting firms have sprung up. Given the small size of the domestic market, these firms now are leaders on a global scale.<sup>30</sup> The key point here is that each country does not need to adopt the same model or method in order to achieve similar end results, since each country is unique. However, some countries, like Jamaica, have refused to utilize most of the natural resources that they possess, which has led to the very slow pace in their economic development...

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<sup>27</sup> Raskin, G. Marcus. p9

<sup>28</sup> Kuznetsov, Yevgeny & Carl Dahlman. World Bank Institute. p4

<sup>29</sup> Kuznetsov, Yevgeny & Carl Dahlman. Pp4-5

<sup>30</sup> Kuznetsov, Yevgeny & Carl Dahlman. p5

There is no doubt that the goal of achieving a knowledge based societies is attainable, as there are other countries that have aspired to this state of social reality. Apart from the examples we have cited above, countries such as Switzerland and Japan have managed to use and develop the limited resources that they possess in beneficial ways and as a result have created effective and efficient knowledge societies.

In order to create effective knowledge societies, every organ of the society has to be covered in a very careful manner so as not to leave any segment behind. Technology, education [to the highest level], entrepreneurship, tourism, imports and exports, among others should be seriously engaged. One could argue that knowledge societies generate the internal dynamics which set in tow a momentum that drives all round development. All of the different spheres mentioned above have to be developed with knowledgeable individuals – both conscious and subconscious drivers of knowledge generation and dissemination – working from the ground up. In Japan for example, Seven Eleven is one of the largest convenience store chains, with more than 10,000 outlets, and one of the most profitable firms in the country. The company has a knowledge creation system that utilizes and systematizes tacit knowledge from customers to create products and services that enables Seven Eleven to satisfy evolving customer needs and wants more efficiently than its main competitors.<sup>31</sup> This is extremely important, for the survival of any company has to depend on the satisfaction of its customers. This will require that the needs of customers are known and deliberate efforts will be taken to satisfy them.

There are a number of interlocking components used to explain such knowledge based firms. These are: knowledge vision, driving objectives, dialogues and practices.<sup>32</sup> It should also be understood that this knowledge system is created at the individual, group, organizational and inter-organizational levels, through the interaction between tacit and explicit knowledge, as well as agents and environment.<sup>33</sup> Tacit knowledge, as used here, means personal [from each individual]; while explicit knowledge is more objectified, as it is linked to a group or organizational decision-making mechanism.

In order for any company to be successful, there must be a long term vision on which strategies are propelled. Martin Heidegger [1962] proposed that the most important dimension of temporality is the future, as it presents the potentiality for being.<sup>34</sup> A present action is guided by past experiences, and these past experiences, along with the present, should steer us toward the future, with the aim that if these experiences are developed to the level of knowledge, then the future will be brighter. In the same way, managers and business operators look to the past in creating future goals with the aim of not making the same mistakes in purchases and sales and capitalizing on the profit generating products. The vision is intertwined in the knowledge capability to predict, learn and respond to the needs of the customer. One could suggest that this may be one of the signal contributions of modernity to the evolution of society.<sup>35</sup> In Seven Eleven's in Japan, organization field counsellors, managers and general staff meet each week to share tacit knowledge. The main question that is asked at each meeting is, what does the customer want?<sup>36</sup>

Outside of developing the knowledge driven companies, the deliberate focus on tertiary level education is of utmost importance in the development of knowledge societies. Tertiary education should be focused on educating citizens to better function in a local workforce that will be able to fulfil their professional and economic needs substantially, and more importantly, the trained workforce should receive reasonable or just compensation for their effort in society. This would prevent brain drain, as individuals

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<sup>31</sup> Shibata, Tsutomu and Hiroataka, Takeuchi. [Eds] (Volume 2, 2006) "Japan, moving toward a more Advanced Knowledge Economy: Advanced Knowledge Creating Companies." The International Bank of Reconstruction & Development. p11

<sup>32</sup> Shibata, Tsutomu. p11

<sup>33</sup> Shibata, Tsutomu & Hiroataka Takeuchi. p11

<sup>34</sup> Shibata, Tsutomu. p12

<sup>35</sup> Taiwo, O. (2010) *How Colonialism Pre-empted modernity in Africa*. Bloomington: Indiana University Press. P01

<sup>36</sup> Shibata, Tsutomu. p16

would be better inclined to seek employment in their own country or region, rather than migrating to other countries where standards of living are better. And in the unlikely event that persons seek greener pastures outside the shores of the country, since there is already a pool of highly educated population, replacing the migrating workers will not be a difficult problem, as there is already “brain” replication in the societies that are not elitist in the focus of education to the one percent of the population.

With the onset of greater knowledge based societies, in Switzerland, which is a prime example, we see vast development in access to education at the tertiary level. Tertiary Education is expected to transmit, replicate, conserve, disseminate, preserve and question established knowledge, as well as to generate new knowledge. The reestablishment of knowledge may be very important as there is value in traditional knowledge for many key industries. For example, “the marine act of 1994 was developed with the key provision of re-establishing the traditional system of bull, which allows leaders to choose sites and fisheries based on location and timing of spawning and feeding aggregations.”<sup>37</sup> Because of examples like this, one cannot neglect traditional knowledge as it may assist in the way forward for further development.

Although traditional knowledge may be important, knowledge societies welcome the pursuit of knowledge for its own sake, yet also seek to harness new knowledge for innovation and for relevant practical application. After all, Bacon had suggested long time ago, that “knowledge is power”. It must reflect culture, society’s values and personal developmental interest on the one hand, and respond to technological advances and economic imperatives on the other.<sup>38</sup> Understanding the importance of knowledge generation means that such societies would continue to fund tertiary education, even during austere times, as that is where salvation lies.

In Switzerland, “a broad and strong system of vocational training exists alongside University Education.”<sup>39</sup> This is important, as this will offer access to occupations and incomes that are not much different from those of University graduates. Students will be able to use critical and practical skills acquired to question traditional ways of doing things and generate new ideas to keep pace in this changing world.

An approach was made for a “new world order”, leading to the end of the cold war. Countries of the world are entering a period of global transition that has created many problems, thus the call for a stronger knowledge based populace to help find solutions for these problems.<sup>40</sup> Today, the growing disparity in wealth and access to resources are also the more reasons for societies to train individuals who can derive new ways of using and preserving the limited resources that they possess.

Knowledge society in Switzerland is understood to mean that knowledge has become more important in all spheres of life. The political realm is no exception, as it takes pride in its highly decentralized political system in which “cantons play a strong role and popular votes frequently resolve political issues”.<sup>41</sup> As it stands; Switzerland is the closest country to a direct democracy. Any citizen may challenge a law that has been passed by parliament. Most importantly, the President has very limited special powers. Each year another member of the government team is elected Federal President in turn so that every government member assumes this role once in seven years.<sup>42</sup> This may set the ground work for elimination of corruption that is so rampant in many democratic political systems.

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<sup>37</sup> Gillespie, Rosemary G. and D.A. Clague. (2009) *Encyclopedia of Islands*. Berkeley: University of California Press. p 783

<sup>38</sup> The Organization for Economic Cooperation and Development.(2003) “Tertiary Education in Switzerland.” p130

<sup>39</sup> Organisation for Economic Cooperation and Development. (2003) “Tertiary Education in Switzerland.” Series: Reviews of national policies for education. (Paris: Organisation for economic Corporation and Development. p133

<sup>40</sup> Spielvogel, Jackson J. (2011) *Western Civilization since 1300*. USA:Wadsworth Pub Co. p962

<sup>41</sup> The Organization for Economic Cooperation and Development. p134

<sup>42</sup> Schwok, Rene.(2009) *Switzerland – European Union: an impossible membership?* Bruxelles, Berlin Frankfurt, M. New York, NY Oxford Wien: PIE Lang, 2009. p147

## CARIBBEAN SOCIETIES AS KNOWLEDGE SOCIETIES?

Although it may be argued that the Caribbean countries share certain elements with more developed countries that are knowledge based, such as the presence of multinational corporations in certain aspects of business life, Information Communication Technologies based companies, and the presence of certain natural resources [sometimes more than developed nations], in order to grow further, each country is seeking to find its own strategy, based on existing conditions. Developing countries, according to Katz, make the change to an information society through primarily political influences, not economic. Developing countries do not have (by definition) matured economies, but they do have growth in government, often as a result of the need to absorb a surplus of information workers coming out of the educational system. Once these countries approach the status of a mature economy, this process will operate and the growth of an industrial sector begins to drive the increase in the numbers of information communications technology workers.<sup>43</sup>

In order for development to be achieved and maintained, it has been argued that, it is integral for all developing nations to acquire additional Information and Communication Technologies [ICT's]. Crede indicates that, "although the costs of using ICT's to build national information infrastructures to contribute to innovative knowledge societies are high, the cost of not doing so are likely to be much higher."<sup>44</sup> The United Nations Commission on Science and Technology for Development [UNCSTD] report puts science and technology [S&T] policies for ICT's at the centre of its analysis. This report concluded that creative uses of these new services and applications depend on capabilities to assemble the necessary components of national information infrastructures, including the hardware, software and knowledge needed to harness ICT's to development priorities.<sup>45</sup> This means, individuals would have to be trained with the necessary skills to operate and use these systems effectively. It is left to each country to develop its own ICT strategy, taking into consideration the social, economic and organizational context in which these are applied.

Most individuals and organizations are pushing for scientific knowledge. While this is important, it should be understood that scientific knowledge is not the only form of knowledge that should be heavily relied upon for the kind of development envisioned. We also have to take into consideration various forms of traditional, as mentioned earlier, compositional, declarative, as well as procedural knowledge. Declarative knowledge offers an understanding of the semantic facts of a domain; while, Compositional knowledge is implicit and fully automatized and covers our exercise of the sensory order.<sup>46</sup> Procedural knowledge is seen "as an understanding of the processes, implying familiarity with relevant causal relationships and an articulate understanding of how to bring about various outcomes."<sup>47</sup> An understanding and application of these forms of knowledge may aid in a deeper realization into what is needed for development and growth.

The route to economic growth also becomes challenging when developing nations have to outsource the various technological services internationally. As Bennett argues, ... the costs of accessing and using the internet are not as low as they could be because many internet access providers are located outside the countries. Jamaica's main access route to the internet for example is through internet service providers in the United States, resulting in high access rates.<sup>48</sup>

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<sup>43</sup> Katz, R.L. Quoted in Burton Paul F. *Information technology and society*. p26

<sup>44</sup> Crede, Andreas and Robin Mansell. (1998) *Knowledge Societies in a Nutshell. Information Technology for Sustainable Development*. International Development Research Centre. p ix

<sup>45</sup> Crede, Andres and Robin Mansell. p ix

<sup>46</sup> Butos, William N. (2010) *The Social Science of Hayek's 'The Sensory Order'*. Bingley: Emerald Group. P94

<sup>47</sup> Butos, William. p94

<sup>48</sup> Bennett, quoted in, Mansell, Robin and Uta When [Eds.] (1998) *Knowledge Societies: Information Technology for Sustainable Development*. USA: Oxford University Press. p106

This is true not only in relation to Jamaica, but other countries that are affected by the same practice are also finding new ways to decrease the high costs.

One could suggest that Katz needs to be cognizant of the fact that growth does not begin nor end with the creation of information workers. What these countries need are not just information workers, but workers who understand and can manipulate not only information technologies (for example, the Internet), but all facets of the life of the society, including growth in agriculture, mining, etc. A farmer, for example, who has limited knowledge of computers, can contribute to the creation of a knowledge society by thinking of and experimenting with new ways on issues including the best time to plant, the kinds of crops that are best suited for particular soils, the best fertilizers to use, etc. Outside of the use of computers, more advanced technological knowledge is also needed. Advances in technology will boost productivity as it will lead to greater production of goods and services in a shorter time. Some technological knowledge can also be seen as common knowledge since, after it becomes used by one person, everyone becomes aware of it.<sup>49</sup> Quality of work may also be dependent on this renewed awareness. Also, sometimes in the absence of technology, a different approach to productivity may be needed in order to reap greater outcomes.

Most of the farming practices in Jamaica, for example, are based on practices that were passed down through generations, and although some of those practices are still working, there is room to replace some of them in order to generate understanding and improvement of the best practices leading to better productive base. There are changes in soil, climate, etc., which could mean that what crop worked best in a particular environment ten years ago may not be high yield crops for the same soil in today's global warming affected land.

What is needed is a greater collaboration between farmers as well as government and private sector, with the aim of facilitating market strategies, introducing effective regulations and providing the type of dialogue that is relevant and appropriate to local conditions. Sometimes what we do as farmers is to leave all decisions to the government and major private sectors without acknowledging that our decisions and input are also integral to growth. Sometimes the only contribution government and private sector can make is through funding for re-education, equipment, etc.; and the farmer, having this improved knowledge base would then be in a better position to make the major decisions.

There is no doubt that the evolution and formulation of knowledge societies is spreading at an uneven rate. The growth in most Caribbean societies is moving so slowly that one might begin to wonder what the next decade will bring, as the very essence of human life begins to deteriorate. It is not the case that Caribbean nations lack resources, whether human or otherwise; the problem lies in having the know how to develop and utilize these resources. Current technology offers much more possibilities for sharing, archiving and retrieving knowledge. This may lead one to question the kinds of leadership that prevails in these countries in relation to how resources may be adequately utilized.

In Jamaica, for example, working to keep pace with this new trend? A draft productivity Summary Report [1972-2007] produced by the Jamaica Productivity Centre [JPC] indicates that over the 35 year period, output per Jamaican worker declined at an average rate of 1.5 percent annually. According to the report, "in 2007, output per worker was only 59 percent of that in 1972. That decline has not recovered since 2002."<sup>50</sup> In the 1970s the average workers could buy more than they can buy now. This means that we have not progressed. The problem is not only that we are moving in the wrong direction but we are moving there at a fast pace.

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<sup>49</sup> Ellen Stonecash, Robin; et al.(2011) *Principles of Macro economics*. Melbourne, Vic.: Cengage Learning. p91

<sup>50</sup> Charles, Douglas Dr. Alicia Roache. In The Daily Observer. (2009, Tuesday, November 3) "Increase Production, Improve Standards of Living, Workers Urged." p04.

It is true that each culture and each society is different, so the route to growth and development will also be different. This does not mean, however, that each society cannot strive toward a level of growth that will enable its citizens to exist, grow and survive. Let's take Barbados for example. Although relatively small, Barbados offer its citizens free state financed education from primary straight to university level. The strong emphasis on education has resulted in a literacy rate estimated at about 98% - one of the highest in the world. Education then is one way Barbados is working to develop its knowledge based economy. The Government, through the Ministry of Education, ensures that all children between the ages of 5-16 attend school regularly. This is enforced with regular visits to schools and homes to verify the reasons for student's absence, as well as daily patrols at the bus terminal in conjunction with the Royal Barbados Police Force.<sup>51</sup>

In order to develop and maintain sustained economic growth, Caribbean Societies also have to pay attention to the level of tertiary education and the number of students that are enrolled and are graduated each year.

In 2007, the 3,276 Jamaicans who graduated from UWI accounted for approximately 41 per cent of all its graduates. Of the Jamaican graduates, nearly 400, or over 42 per cent, were in the social sciences, and over 1,000, or 32 per cent, were from the faculty of humanities and education. On the other hand, a mere 28 Jamaicans, or less than one per cent, graduated from the UWI's engineering faculty. In agriculture, the number was five - that is 0.152 per cent of all Jamaican graduates. Pure, applied and natural sciences were a bit better but, even here, the 319 were only 9.7 per cent of all Jamaican graduates. At the same time, Barbados, with a population that is 10 per cent of Jamaica's, had 35 engineering graduates, or three-and-half per cent of all the Barbadians who received UWI degrees in 2007. In Trinidad and Tobago, the figure was 373, or 13 per cent of all their graduates. In pure, applied and natural sciences, there were 340 graduates, nearly 12 per cent of the Trinidadians who earned degrees.<sup>52</sup>

The point here is that, in relation to University Education in particular and overall education in general, Jamaica is performing poorly compared to some of its Caribbean counterparts. More needs to be done in education in order to achieve growth and development. For example, introducing students to disciplines like Philosophy from the High School level which may seek to heighten critical thinking skills. Also, some of these societies may want to focus on making tertiary education more affordable; the end result being higher level education for more High School graduates. There may also be a refocus and a more attractive packaging for agriculture which may lure a larger number of young vibrant individuals into this field.

Jamaica has a rich culture and an abundance of resources, but the escalating social issues [disappearing jobs, excruciating poverty, endemic crime and violence, etc] cannot be ignored. A long term economic growth for Jamaica is possible through the development of a knowledge based society, where skilled knowledge workers are trained in specialist's areas and placed in jobs accordingly. Training and retraining of public and private sector workers is necessary, for example, with the aim of generating higher income margins.

Also, Governmental bodies and other stakeholders need to review the lists of goods that are imported and identify which of these can be produced locally. It will cost a high capital to put the entire basic infrastructure in place, but the end result will mean a start in the development process. Jamaica cannot afford to stand by and allow all of its natural resources to go in the hands of private individuals who have no

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<sup>51</sup> Resource Handbook. (2000) "Education in Barbados." (The Planning and Research Section, Ministry of Education, Youth Affairs and Culture Barbados. p 20

<sup>52</sup> The Jamaica Gleaner Online Editorial- (2008, Monday, November 24) "A blue print to reach developed world status." [www.jamaica-gleaner.com](http://www.jamaica-gleaner.com).

interest in the development of the Jamaican society. Jamaica can develop into a force to be reckoned with if the focus is directed on the development of individual and organizational knowledge base. This development is needed for continued survival. For this development to be effective, a greater focus needs to be placed on human capital, which will lead to development in technological, tacit and explicit knowledge.

The weak knowledge base of Jamaica might have contributed originally to the creation of naive survival values inherited from the plantation slavery system from which Jamaica emerged, which pervade human existence and impacts negatively on social order and cultural advancement. It is true that some individuals and groups might have to adopt and use detrimental survival values in order to remain in existence. Yet it is arguable that individuals do not often voluntarily opt to use negative survival strategies, as it is often times thrust on them unconsciously, as they tend to choose them based on the circumstances that they are faced with. The suggestion here is that some humans may tend to choose survival over death, even if certain moral values are sacrificed in the process. Survival values sometimes take precedence over other values. With societies gradually aiming toward a greater knowledge base, it can only be hoped that the need to utilise these survival values will be less compelling in the future.

One can speak of a knowledge society, or a knowledge based society, when the structures and processes of material and symbolic reproduction of a society are so permeated with knowledge-dependent operations that information processing, symbolic analysis, and expert systems take pride of place over other factors of reproduction.<sup>53</sup> This involves thinking of new ways to improve and develop our jobs no matter what these may be. It is with this in mind that we need to view each job as a knowledge job. A fisherman man, for example, should have knowledge of how to navigate effectively, the best time to fish, net mending and making techniques, survival strategies during storms on high seas, mending the boat under hazardous conditions, ability to understand and predict the weather, business ethics and skills. These should be known first hand and they should seek to garner new information that will help them to stay current with what is happening in their field. In many cases, fishermen rely on second hand knowledge. When this happens, they may experience a loss, thus stagnant economic growth. Although some of that information may be reliable, there is always room to improve. Training and retraining is integral to the effectiveness of this process. For too long, we rely on traditions without realizing that we are living in a dynamic world, a world that is constantly changing in all respects. In order to understand the changes, we need to be a part of the process and as Popper argues, not submit to tradition without first analyzing its relevance to current situations.<sup>54</sup>

## CONCLUSION

Knowledge is power; it releases information about ourselves and others, which allows us to be better able to make informed decisions. A society which encourages a broad knowledge base can cultivate a level of social and economic development that humans lack at the primordial survival level. As societies in the Caribbean, we can learn from each other and from the rest of the world, as we navigate new strategies that will gear us toward a more knowledgeable environment and citizenry. These transformations rarely occur in spectacular leaps, but a gradual process will lead societies closer to the goal where survival and existences are celebrated as compatible elements of cultured existence and development. To surpass the potential of new knowledge and vast technical change, an educated workforce is needed. Learning in multiple environments [school, home, church] will also be useful as each individual develop the necessary skills needed to boost knowledge development.

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<sup>53</sup> Willke, Helmut. Eds. (2007) *Smart Governance. Governing the Global Knowledge Society*. New York: Campus Verlag Frankfurt.

<sup>54</sup> Popper, Karl. p166

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