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## OPERATIONALISING SUSTAINABLE DEVELOPMENT GOAL (SDG) 4 IN NIGERIA: ARTIFICIAL INTELLIGENCE AND EMPLOYABILITY OF GRADUATES

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### Abstract

Man's deficiency at applying acquired knowledge intelligently has prompted development of Artificial Intelligence (A.I.), a computer device designed to learn new concepts and tasks; it also possesses the ability to reason and draw conclusions about the world. This shows that man finds it difficult to articulate and stimulate knowledge appropriately which affected development. Products of educational institutions particularly in Nigeria, have not been found employable. Man and his nature support acquisition of knowledge. However, intelligent application of this knowledge had been queried severally. Can it be claimed that human nature negates positive application of knowledge for the purpose of development? This paper expounded the concepts of human nature, Artificial Intelligence, employability, and education in relation to operationalising United Nation's Sustainable Development Goal (SDG) 4. The paper employed the speculative, historical, analytic and prescriptive methods, and concluded that operationalising the SDG 4 has become imperative, therefore, every means must be utilised to ensure its success through the process of education. The paper therefore recommended that teachers should discard the 'banking' method of teaching and develop learners such that they are allowed to discover knowledge and endeavour to apply same intelligently with the government providing appropriate environment for education and its process to thrive.

**Keywords:** Sustainable Development Goal, Artificial Intelligence, Employability, Human Nature, Education.

### Introduction

The development of any nation is generally hinged on the quality of education in existence by the society. This is corroborated by the decision of the United Nations Organisation to develop/come up with the Sustainable Development Goals which included goal number 4 that harp on education. The failure of Millennium Development Goals (MDGs) to fully achieve desired objectives prompted the idea of the SDGs. The need for further researches for an all-round development of members of the society in order to meet the aspirations of the United Nations has become highly imperative. Education possesses both intrinsic and extrinsic nature which are connected to acquire knowledge, skills and attitudes. Knowledge involves imparting information, facts and skills, when rightly applied, it becomes what can be referred to as intelligence.

Intelligence is essential when real growth and development is desired in any society. This is because when acquired knowledge is applied appropriately, correctly and intelligibly, education becomes responsive to the needs, aspirations as well as the goal and objectives of

the nation. By being responsive, it is the efforts and ability of educational process geared at/towards solving problems and meeting the needs as well as challenges of the 21<sup>st</sup> century society.

Degeneration and degradation of societies can be attributed to man since he is the pivot of all activities; he calls the shots, influenced, dictates and decides the trends/directions of development over all other creatures on the planet earth when the influence of nature is excluded. The degeneration is attached/connected to man's inability to apply knowledge acquired intelligibly for the purpose of growth and development hence, the search for an alternative to man to take up the place of man in the quest for development. This is the genesis of Artificial Intelligence (A. I.).

Artificial Intelligence (A. I.) was borne out of the inadequacies of man to correctly and appropriately apply acquired knowledge. It can be described as a branch of computer science that is concerned with study of creation of computer system that can learn new concepts and tasks and reason as well as reason and draw conclusions about the world.

In Nigeria, issues have been raised as to the inability of graduates of educational institutions to apply knowledge imparted for desired growth and development of their society. Why is this so? Why have products of our educational institutions failed to apply knowledge for required purpose? Why has the call to substitute man with A. I.? Other relevant questions will include; how related \connected is A. I. with ontology that is, human nature and the process of education? These questions will be attempted in the course of this paper in order to provide answers and find solutions to the nagging situations and issues facing man-kind.

### **Conceptual Analysis**

In the recent past, the clamour for Artificial Intelligence (A. I.) has been on the rise. This is essentially at the wake of developing machines to assist or replace man in the discharge of some responsibilities in the society. A. I. has been a creation of the computer system which involves application of intelligence by robots or machines in solving problems or handling issues in man's daily endeavours. A. I. requires/involves ability to engage in critical thinking and taking most appropriate decisions to arrive and draw conclusions on issues. The central goals of A. I. research include; reasoning, knowledge, planning, learning, natural language processing (that is, communication), perception and the ability to move and manipulate objects (Bostrom, 2002). Moravec (1999) stated that A. I. was founded on the fact that a central property of human's intelligence can be correctly described that an equipment can be produced to stimulate it. The stimulation is imbued in, and prompted by the machine. This is similar to human nature or mind which prompts certain actions in man.

Man can think, reason, plan, acquire knowledge, and manipulate objects. His attributes and behaviours can be altered for instance, to limit harmful effects on the environments (Ekundayo and Lawal, 2016) thereby encouraging and prompting peaceful co-existence. How appropriate then is it for A. I. to take over, help or replace man in the discharge of responsibilities? Can man by nature acquires but fail to intelligently apply knowledge thereby calling for his replacement with machine?

Human nature is in the aspect of metaphysics known as ontology. Ontology is the philosophical study of the nature of being, existence or a field revolving around the nature of reality. Human nature influences man's actions significantly thus, human nature can facilitate knowledge (Meroyi, 2013). This is connected to the theory of multiple intelligence in man. Human nature further helps to ascertain how real and reliable knowledge is. This reality enables the authenticity of the content of knowledge that is required to bring about development. What is built into the robot, computer or machine as knowledge is produced by man, this revealed the connections between human nature that is, ontology and A. I. Thus, A. I. will not be possible without human nature, since it is the nature of man that prompted the ideas and knowledge inputted in the machine. Then, why has man failed to intelligently apply his knowledge but preferring to build it into machine which will apply the knowledge on his behalf?

All efforts in the process of education is essentially to produce individuals that will be fit to execute and achieve the objectives of development outlined by the society. Therefore, becoming employable is the goal designed for every product of educational institutions, and to become employable will mean being able to apply knowledge acquired in schools intelligently to satisfy employers of labour and meet the yearnings of the society. Thus, employability can be considered as the ability of employee to meet the output needs of his/her establishment/employer in order to promote its objectives of continued existence and relevance in the industry. In essence, graduate employability has to do with matching education and its contents with job requirements and demands.

### **Man and Inability to Apply Knowledge Intelligently**

It has been stated earlier that human being is imbued with nature which directs his actions. Human nature involves in the natural scheme of things as stated by the Stoics. This shows that human nature can facilitate knowledge as earlier enumerated. In the education process, learner's mind is developed through interactions with learning materials coordinated by teachers, such that learner's mind is/becomes capable of mediating acquired knowledge, judgement and reasoning, skills and attitudes. This is ensured through appropriate pedagogy that enables construction of personal ideals referred to as mental models, from the knowledge acquired in school. This is expected to make learner able to confront situations with the mental models or constructs developed through the teaching-learning interactions and activities.

In Nigeria and several other nations of the world, man has been alleged to have disappointed and failed in demonstrating as well as applying the ideals or mental models developed through acquired knowledge. Several reasons might have been adduced for this. For instance, certain factors might have suppressed inspirations particularly, where his high expectations have not been met by his rewards thereby frustrating inspirations to apply initiatives or novel ideas at solving problems. Disappointments from political leaders could have also been responsible for the failure to apply knowledge intelligently. Other factors like health, social relationship and cultural values might also contribute as debilitating components on the products of educational institutions across the globe.

The various cases and instances of man's failure to apply knowledge intelligently across the globe necessitated the need by computer scientists to develop machine to take the place of

man in the discharge of his natural responsibilities. In other words, man is no longer found suitable and capable of intelligent application of knowledge hence, the quest for his replacement.

### **Education and Employability**

The purpose of education is to produce graduates who can demonstrate skills acquired in schools for production of goods as well as service delivery for the employing firms. The skills displayed arise from the consciousness of knowledge acquired through critical thinking of how best to apply the knowledge or skills which are only possible through vibrant mind capable of articulating ideas imparted.

Obanya (2016) identified three major components of employability skills which are; (a) Fundamental Skills comprising communication, managing information and analysis/problem-solving. (b) Personal Management Skills comprising of positive attitude, responsible behaviour, adaptability and continuous learning. (c) Team Work Skills comprising team spirit and involvement in project work. Thus, employability entails articulating activities of employees in the nation's economic wealth creation. It can be inferred from Obanya's components of employability skills that in the Fundamental Skills, communication will involve aptitude, inherent ability, and going by ontology that is, human nature, an in-born pattern of behaviour often responsive to specific stimuli in passing information, message as well as conversing in manners capable of exhibiting the use or control of the mental powers in positive ways/ventures. Managing Information should be acts of handling or processing data, information or facts received ethically which are to be utilised. This is the Analysis/Problem-solving skill. Under the Management Skills, positive attitude is expected to make recipients of knowledge take decisions and carry out actions that will not negate the development of objectives of their societies. Thus, what can be referred to as responsible behaviour should be the outcome expected by the society from graduates of educational institutions. The acquired knowledge will make graduates of schools adaptable to changing situations of their environments; economic, political, technology, etc. The ability to adapt to situations will/must encourage developing attitude of continuous learning in a new environment or situation. Above all, cooperation with others in executing project works successfully otherwise referred to as Team Work Skills by Obanya (2016), will help to accomplish the task of schools to produce graduates capable of reasoning, utilising as well as managing information to solve societal problems and tackle challenges.

The above analyses therefore, describe the necessity of the imparted knowledge and developed mind to manipulate the three skills in achieving unique and creative outcomes. By this, the process of education will ensure cultivating the mind to reason and act in such (a) way(s) that will make products of schools respond to the developmental needs of the society and the world of works in the 21<sup>st</sup> century. This is the same principle the Artificial Intelligence (A. I.) is designed to learn new concepts and tasks as well as have the ability to reason and draw useful conclusions about the world.

The deficiency in man's ability to demonstrate A. I.'s ability to reason and draw useful conclusions has been attributed to absence of life skill in the school curriculum (Obanya, 2016). This can be assumed to be the bane of man's ability in applying his mind to critical thinking

hence, the clamour for A. I. to bridge the gap of the deficiency in life skill in man according to Obanya (2016).

The term 'Life Skill' refers to the skills a person needs to make the most of life. Life skills are usually associated with managing and living a better quality life. They help us to accomplish our ambitions and live to our full potentials.

### **Pedagogy and Development of Human Mind**

Education is an instrument for preparing learners to achieve societal objectives through acquired knowledge and employability skills. Methods of imparting knowledge and skills have been questioned as to its potency in achieving desired outcomes. Ekundayo and Lawal (2016) lamented society's consideration of higher education as less important. The decline was attributed to universities' failure to produce the results that were expected of them in many of the developing world, some of the universities are estranged to regional, local or national issues and problems, and the content as well as the style of education was often at variance with the reality that surrounded them and sometimes exacerbated inequalities. Higher education was considered to have a "low rate of return" and funding, which made focus/attention to be shifted to primary and secondary education (Chapman, 2002 in Ekundayo and Lawal, 2016).

The need to therefore come up with necessary pedagogy that can equip learners in order to defeat the purpose for which the A. I. is conceived is highly imperative. This would require that the process of education accepts the centrality of learners in which successful learning will provide positive and lasting change in behaviour and conscious self-improvement of learners (Obanya, 2016). This is because bad or harmful behaviour of individuals can be altered through the process of education to limit harmful effects on the environment.

The pedagogy that will transform minds of learners has to make teachers become tools that will not make learners remain the same again. Developing new attributes in learners in which teachers raise their consciousness in critical thinking for creative and unique/novel approaches to carrying out responsibilities can lead to the achievement of the set objectives of societies. Thus, a creative teacher will employ strategies or pedagogy that will make learners respond creatively to the teaching-learning challenges. There will be flexibility and diversity in the classroom interactions with learning experiences and activities that will encourage discovery, and link school works with the outside world. Thus, the creative teacher should bring about successful learning through positive and lasting change in behaviour, ways of life and learners developing capacity for continuous self-improvement (Obanya, 2016).

### **Conclusion**

Operationalising Sustainable Development Goal (SDG) 4 in Nigeria has become a responsibility of everyone particularly, the process of education. Therefore, all hands are on deck to prevent failure of the goal in achieving the laudable set objectives which are to; 'Ensure inclusive and equitable quality education for all and promote lifelong learning opportunities for all'. It acknowledges that quality education is a fundamental necessity for sustainable development and an enhanced quality life.

## Recommendations

From the discourse, it is recommended that teachers should discard the 'banking' method of teaching and employ the creative means where learners are allowed or given the freedom to discover knowledge and face challenges ahead of them. Learners or graduates of educational institutions should apply knowledge acquired ethically to solve problems, while government should provide necessary and appropriate environments required for the education process to thrive.

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