To What End Is Research?

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Concepts and curiosity

There is renewed interest to investigate old and new science concepts out of curiosity in recent years. In physics, the century-old theory governing matter was shaken following the discovery by scientists in Geneva, Switzerland of small particles which violate the model proposed by Albert Einstein in 1905. Similarly, in health and medicine, studies on drugs and preventative measures enrich our knowledge of tackling society maladies. Again, in climate science, food, nutrition and agriculture, technologies warn us of a world on the verge of collapsing unless there is a change in present development paradigms. Archaeological findings livens the debate on cosmology and origin of life. In all of the above, research continues to poke at the mysteries of life, underpinning generations of long-held positions.

Whose agenda?

Research, in its many forms, yields benefit to subjects, objects of study and other life forms. An emerging trend in research circles is that dictates of sponsors shape the research agenda. Debating on this issue whilst sensible does not yield helpful insights since institutions are organised and managed

based on own philosophy. In industrialized countries, state-of-the-art equipment leads the research trends whereas in less industrialized countries, the technological advancement is decades behind their counterparts. Interestingly, research however, depends on the processes of finding a problem and solving it in a systematic or logical manner, period. Nothing to do with equipment, gadgets and possessions.

Improved livelihood and sustainable use of resources

Commenting on the subject, Dr. Sebastian Chakeredza of The African Network for Agriculture, Agroforestry and Natural Resources Education (ANAFE) (www.anafeafrica.org) says, "When a project, research is conducted to have a desired impact or achieve a certain goal. Whether basic or applied, research can be viewed from the Logical Framework Process and its results chain. Research from the word itself means (Re) search. In which case one will be searching for more knowledge (in case of Basic research, the objective is to advance the *status quo*) or searching for a way to alleviate a current problem you have seen (Applied research)."

Dr. Chakeredza added that “benefits from Basic research might not be easily realized in the immediate future, although, we might build spaceships, the benefits might come much later; we might do research on mitochondria, DNA splicing, but the application of results might not be immediate. Applied research is easier to see the input to end continuum. However, different research programmes wherever they are carried out should contribute to a higher level of impact or goal, which from the human perspective is improved livelihood and sustainable use of resources.”

Knowledge sharing and product development

An associate professor at National Chung Hsing University (www.nchu.edu.tw) in Taiwan, Tzy-Ling Chen, opined that it depends on how one sees research. “First, if the research aims at finding something new or achieving breakthrough and innovations in the field, at the end of research when objectives are accomplished; academically, investigators often find ways of sharing the research findings with other peers and colleagues for further feedbacks. The knowledge sharing may promote more research ideas to probe deeper and thereby a new theory may be developed afterward. What they frequently do is to attend and present their study results in professional conferences of the field

in relation to research theme, submit for journal publication or give a talk to professional communities of interest (face-to-face, online, etc) and so on. Some research results may be further developed into certain products, technologies, principles, rules, and systems etc. to be used in practice. If the research outcome is very specific with unique market values, to directly apply for a patent may be feasible at the end of research. More than often, investigators hope to find alternatives to the existing problem-solving approaches for better results or improvements via their research. Second, if the research purposes focus on verifying what is known already, at the end of research, investigators usually try to inform those of interest what the test result is. This research process is also called "deductive inference." The ways of keeping those of interest informed are similar to those knowledge sharing approaches used by investigators of innovative research".

Research is forever

Research should be innovative enhancing our understanding of what we seek to investigate. Focusing on research processes will yield helpful insights as to why it was conducted in the first place. Research should be carried out without harming Mother Nature. Noteworthy research stimulates intellectual debate

and resolve. These are ideals. As to how deep and wide should understanding and knowledge go, Dr. Chakeredza summarised it saying “research is forever”.

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