

Trends in Science and Research

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ABSTRACT

Data is all the information created by humanity up to date. Data recording is becoming increasingly important nowadays. In the 19th century, it takes about a decade for scientific data to get doubled but after the second World War, it became around 25 years. At the present time, after the introduction of artificial intelligence and data analytics, the rate of data recording and analysis has incredibly reduced to 13 hours. This procedure is not possible manually inside the laboratories, thus it requires robots consequently to manage and reduce the doubling rate of all the knowledge and information available.

Life science research and biotechnology, including genetic engineering, synthetic biology, genomics and proteomics have led to remarkable improvements in health. Developments in the field of drugs, vaccines and diagnostics have resulted in significant advances in the prevention, diagnosis and treatment of diseases. These advances, however, also present new challenges in the field of bioethics and of equitable access to life sciences research and have been the subject of several recent studies. Being a part of the OIC we have observed that there is a lot of poverty lately however we strongly believe that we are moving towards the era of science and innovation to eradicate poverty rapidly. Knowledge economy is going to play a huge role in future. As going through the process of technology development would not be needed as we plan initiatives for research and innovation. Further advances in this advanced scientific era are also expected to lead to the development of new biotechnology products that will further boost an already existing billion-dollar industry. Again, the countries that will benefit most are those with developed technological capability and established links between academia and industry. So the question must be raised as to whether the dramatic new advances in biosciences will really benefit developing countries and improve the quality of life of their people, or whether they will widen the economic and social gap between the rich, developed countries and poorer, developing countries even further.

Much of the research done in the academic sector aims at solving local problems, partly because of funding considerations, and partly because limited manpower and resources make it difficult for scientists to compete in areas at the forefront of modern science. To overcome this ICESCO is working in the domain of science and technology development in Pakistan to motivate research. We have also proposed two thousand dollars for covid-19 vaccine last year and are waiting for its approval. Without innovation and start ups research initiative cannot be developed and hence, ICESCO is taking initiatives and providing financial support. Besides basic research, applied research is highly needed in this time. Funding agencies also seek benefits in their interest resulting in the significance of applied research in Pakistan.

An innovation award has been announced by ICESCO to encourage scientific research and technological development. We are planning to celebrate Women and Girls Day in Science & Technology on 11th February 2021 through a virtual webinar, which will be conducted by ladies who are experts in their respective scientific domains.