Understanding the landscape of Open Life Science in India '22

Nilabha Mukherjea
20BOE10046
nilabha.mukherjea2020@vitbhopal.ac.in

Introduction

Nilabha Mukherjea is a member of the 6th Cohort of Open Life Science (OLS Program) from September 19th, 2022 to January 16th, 2023. In this project, I seek to understand the landscape of Open Life Science research, policies, and data in the Indian research ecosystem through conversations with researchers, academicians, and industry professionals.

What is Open Science?

Today, the concepts of Open Research, Science, Data, Material, Source, Peer Review, Educational Resources, and similar concepts are looked at with hesitancy or doubt. Hesitancy, in trusting the source's credibility and doubt, in ensuring that one's work truly remains their work product in a growing digital world. Open Science, with its complementary components, helps develop a healthy relationship between science and society.

Defining Open Science, at its core strives to ensure that scientific knowledge is freely shared with and by researchers. Though the concept holds water, there remains no universally accepted definition of open science.

Now, to help you view the following QRs to the best of your ability, I have decided to move ahead with a baseline definition of what Open Science is.

Open Science generally refers to unrestricted access to knowledge of any format.

Open Life Science Initiative	**GitHub Project**	**Open Canvas**

I would greatly appreciate it if you could take some time to partake in the following elements available after scanning the QR codes.

My project stands to perceive Open Science from its **monetary** pros and cons, and through its **communal** benefits.

Exploratory Research

According to Article 51A(h) of the Indian Constitution, "it shall be the duty of every citizen of India to develop the scientific temper, humanism, and spirit of inquiry" [1]

Citizen science projects and open science policies aid in the development of scientific temperament among the general public. Those who can partake in such citizen science efforts, stand to gain firsthand experience with scientific activities, gain knowledge, and learn to appreciate the process that leads to scientific conclusions.

But, that is not the end of my concern. In 2018, India spent about 0.7% of its GDP i.e INR 1,13,825 crore on scientific research. According to the NSF, SCOPUS, and SCI databases, India was ranked third, fifth, and ninth in scientific publication output, respectively [2]. From the monetary perspective, the graph has slowly and consistently increased.

In the same year, 2018, India spent nearly INR 2700 crores on subscriptions to e-journals, print journals, and scientific databases such as Web of Science, Scopus, and others [3]. Furthermore, it is estimated that Indian researchers pay nearly USD 2.4 million per year to publish their scientific research in open-access journals [4].

Now, here is the problem; despite the significant investment in publicly funded research in India, research remains behind a paywall. This makes it difficult to translate scientific findings into innovations to solve problems, both industrial and societal.

Hence, the need to adopt an open science policy is right now. From monetary savings to improved science-societal relations that stand to aid the citizens of a developing nation, India stands to be the benefactor of such efforts.

Sources

1. https://legislative.gov.in/sites/default/files/COI.pdf
2. https://pib.gov.in/PressReleasePage.aspx?PRID=1620083
3. https://insaindia.res.in/pdf/Publication_of_Literature.pdf
4. https://www.currentscience.ac.in/Volumes/112/04/0703.pdf

Get To Know Me

Survey Form