



# **GRL**2020

A Vision for a Global Research Library

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## **Open Content in India: An overview**

Subbiah Arunachalam

Centre for Internet and Society, Bangalore

<[subbiah.arunachalam@gmail.com](mailto:subbiah.arunachalam@gmail.com)>



India was the first among the colonized countries to become free, but in the first four decades free India was struggling to make a mark in the world of science and scholarship. Whatever was achieved was commensurate with neither the size of the country nor its great traditions dating back to a few millennia.

Things started changing in the early 1990s when India started opening up its economy. Today India is aiming to becoming a global knowledge power.

## Knowledge Commission

Probably India is the only country to have set up a National Knowledge Commission, to advise the Prime Minister, with the objective of transforming India into a knowledge society. It covers sectors ranging from education to e-governance in the *five focus areas* of the knowledge paradigm

- ❖ Access : Easy access to knowledge
- ❖ Concepts : All levels and forms of education
- ❖ Creation : Effective creation of knowledge
- ❖ Application of knowledge systems
- ❖ Services for better delivery

The past five years have seen a steady rise in the number of research papers published by Indian researchers. But only a small part of the research output is available through open access channels. While more than 110 refereed S&T journals are open access journals, the number of open access institutional repositories is less than 50. Both INSA and IASc have been generally supportive of open access and have plans to make the full texts of papers by all the Fellows available freely on the Internet through a portal.

NIC Centre for Biomedical Information, set up in collaboration with the Indian Council of Medical Research, has several open access databases. One of them makes available online versions of 40 biomedical journals. They have also set up a repository, OpenMED, for full texts of biomedical research papers from around the world.

MedKnow, a Bombay-based publishing company, produces free online versions of 79 journals, mostly from India and in the area of medicine.

The Institute of Mathematical Sciences, Chennai, is maintaining a mirror site of arXiv, the worldwide repository for physics and related fields.

Both the Council of Scientific and Industrial Research and the Indian Council of Agricultural Research have plans to set up institutional open access repositories in each one of their laboratories.

The Knowledge Commission has recommended mandating open access to all publicly funded research.

## Open Educational Resources

An area India is doing well in the open content movement is open educational resources. The National Council of Educational Research and Training has made all its school textbooks open access. The Indira Gandhi National Open University, the largest in the world in terms of the number of students enrolled, is making available most of its course material free on the net both as text and as video.

## NPTEL

Seven of the Indian Institutes of Technology and the Indian Institute of Science have formed a consortium to produce open course ware of engineering and science courses by top class teachers for free distribution in the form of video (available now in YouTube and on CD-ROM). Under this programme, called the National Programme of Technology Enabled Learning (NPTEL) a large number of college teachers across the country have been trained to use the NPTEL material in their own courses.

The Knowledge Commission has recommended such initiatives for other areas of knowledge such as humanities, agriculture, education and medicine. To speed up the creation, adaptation, and utilization of open educational resources, the Commission has recommended launching of a 'National *E-content* and *Curriculum* Initiative'.



The Knowledge Network, recommended by the Knowledge Commission, will connect the more than 400 universities and 18,000 colleges and provide access to high quality online educational content to students and faculty. This \$4.6 billion programme will make the field of higher education level playing and help the rural poor.

At the school level textbooks produced by the National Council of Educational Research and Training and several state governments are already available at no cost on the Internet.



The Director General of CSIR, Prof. Samir Brahmachari, is leading an Open Source Drug Discovery project.

ICAR, ICRISAT and IITK are collaborating on Agropedia, an ICT mediated knowledge creating and organising platform.

A number of Indian physicists and computer scientists are engaged in international collaborative projects involving cloud computing and sharing of both new knowledge and data.

Under the Digital Library of India (or Million Books Digitization) Project, managed by the Indian Institute of Science, more than 20 centres in the country have so far digitized more than 137,000 books in about 30 languages (a total of 45 million pages).

Indira Gandhi National Centre for Arts (IGNCA) has a large digitization programme.

- Over 100,000 slides on Indian Cultural Heritage
- National Mission for manuscripts collects and digitises old manuscripts on palm leaves and paper
- It is proposed to upload the entire digital collection in D-space repository

The Knowledge Commission supports three open access portals – on energy, environment and water functioning.

India has a strong open source software movement and both Richard Stallman and Jimmy Wales have a large following in India. The annual meeting of the open source software community attracts a few thousand delegates. Wikipedia is available in at least nine Indian languages.

A large number of Indians maintain blogs and contribute to Wikipedia

## **Content soon to become open**

The Central Reference Library, Calcutta, has digitized 600,000 bibliographical records in different Indian languages under its Indian National Bibliography project.

The Central Secretariat Library, New Delhi, has digitized about 1.8 million pages of the *Gazette of India* and are awaiting permission from the copyright holder (Controller of Publications, Government of India) to make them available online.

While there are many initiatives to make content open and free, regrettably there is no coordinated action at the policymaking level.

Unlike in the United States there is no strong Free Culture and Taxpayers' Alliance for Access to Information movements in India yet.

The Right to Information Act has not been effectively used yet to make publicly generated information, especially research information, openly and freely accessible to the public.

Hardly any political party – Left, Centre or Right – has a policy on open content. Nor do the bureaucrats and technocrats.

Concerted advocacy and focused educational campaign may bring about the much needed change.