

Editorial Introduction

Indian Knowledge Systems

Prof. Jaideep Sharma

Indira Gandhi National Open University, New Delhi

jaideep@ignou.ac.in

The special issue, Indian Knowledge Systems (IKS) was planned as a collective effort to bring at one place articles showcasing efforts at unearthing, collecting, organising, disseminating and contextualising IK in the society. The contributions in the issue justify it to some extent. Fourteen articles have been contributed by experts from humanities, social sciences, sciences, technology and medicine. Almost half of the contributions are from LIS professionals. Subjects of the articles range from IK per se to IK in Medicine, Law, Plant Science and Agriculture. Contributions cover the digitization, documentation, validation and application of IK. Analysis of publications on IK has also been done to have an estimation of the coverage of its literature. Futuristic ideas at implementing IK using the latest technologies have been included in the issue. An analysis in brief, of the contributions is presented in the following paragraphs.

The issue comprises fourteen articles contributed by scholars from different fields.

The first article, Indological knowledge and its Syllogism provides an overview of IKS briefly describing the concepts and the scholars who contributed in those areas. The article summarizes the sources of IKS and contextualizing them to the present times. The authors have discussed in detail the concept of space and time in IKS. Dr. Smita Arora in her article “A Critical Review on the Treasure of Indian Knowledge Available in Various Scriptures in Relevance to Modern Era” has tried to connect the IKS with modern knowledge and its relevance today,. She has presented it in the form of an exhaustive table giving examples from Linguistics particularly Sanskrit, Mathematics, Astronomy, Physics, Chemistry, Botany and Medicine. Being a medical practitioner, she has elaborated the significance and achievements of IKS in different branches of medicine, e.g. Physiology, Genetis, Gynaecology, Peditraics, Orthopaedics, Surgery and Immunisation. The article presents a case for popularisation of IKS by translating it into different languages of the world.

A team of Sanskrit experts alongwith a Library and Information expert have presented their findings of analytical review of literature, in particular Mahabharata. The study is limited to Nyaya Darshan, discussing the application of Vada, Jalpa and Vitanda in it. The authors have given examples of the same from Mahabharata and their application in contemporary legal and parliamentary proceedings. The authors have concluded by suggesting areas of application of Nyaya philosophy in contemporary areas of study .

The article “Plant Cultivation and Indian Knowledge System: An Exploration of the Available Scholarly Literature” describes the plant cultivation practices and techniques in IKS . These can be adopted and adapted in the present day to overcome problems in cultivation and produce. The author has also advocated to provide referral services in libraries in plant cultivation based on IKS.

Open Access in IKS is the theme of the article wherein a detailed analysis of IKS in OA literature has been presented for twenty years, 2005 to 2024. The analysis has been done from the

point of view of growth of publications and citations, productivity of leading journals and publishers, research areas etc. Satellite Image Processing and Photogrammetry emerged as the most dominant research focus, followed by Complementary Alternative Medicine. The popularity of Gold OA model is seen. The other models are also popular in publishing results related to IKS research.

IK is vast, its scope and application is huge. Access to IK, its dissemination, popularisation, contextualisation, acceptance are the tasks before us. The article, Traditional Knowledge- From Protection to Promotion: A Perspective summarises thoughts and attempts in this direction. CSIR is making commendable efforts in this direction that have been penned in the article.

The authors of the article “Vedic Knowledge System: Ordering and Purpose” have analogized the division of knowledge on the purposes/ends of life, i.e. Dharma, Artha, Kama and Moksha. They have correlated the Vedic Knowledge classification to the modern day disciplines. Principles of knowledge classification as used and implemented by library classificationists have also been discussed.

The article “Digitization of Indian Traditional Agricultural Practices in the Traditional Knowledge Digital Library – Towards Sustainability Science” by a team of TKDL scientists presents a comprehensive detail of traditional agriculture knowledge and its preservation, popularization and application in the current age. It presents in brief the traditional knowledge in Agriculture. The article throws light on the efforts of TKDL in its documentation, application, dissemination and preservation.

“Indian Knowledge System for Cancer: A Proposal for Complementary Alternative Medicine” is an article that proposes a cancer information system based on IK. The article presents a case for developing such a system highlighting its current status and the need for improvement. The author emphasises the inclusion and adoption of latest ICT in the development of the system. He has also touched upon the role of libraries and librarians in developing such a system.

The contribution of Dr. S. R. Ranganathan in knowledge organization is immense. His philosophy and teachings are the IK in Library and Information Science. There is literature available that supports the applicability of classification theory in the modern web and AI environment. The article “Indigenous Knowledge Systems and Machine Learning: Evaluating the Suitability of Colon Classification” is a perfect example in this direction where the author has, by practical demonstration, tested and showed the application of Colon Classification in automated classification in an AI framework.

Another example of the application of the faceted approach of S R Ranganathan to test the results of LLM application is presented by the authors of the article “Applying S.R. Ranganathan’s Classification Theory to Investigate the Epistemology of Knowledge Organisation in Large Language Models (LLMs)”. It presents an innovative proposal of applying the theory of classification in testing and validating the results retrieved applying LLMs.

“Linking Contemporary Science with Traditional Knowledge Sources: A Scientometric Approach” examines the importance of IK sources in modern sciences. The analysis is based on the evaluation of the publications of the last 200 years culled from Scopus database. The results are positive and encouraging as it is found that experts from about 60 countries have researched these knowledge sources. The areas studied comprise all fields including the latest such as computational linguistics. Another interesting finding is that the majority of the researchers are from outside India.

“A Scientometric Estimation of Ayurveda Research Publications for the Period 2022-2024: A Pilot Study” discusses the trends in publications in Ayurvedic system of medicine during 2022- 2024. As expected, India leads in the research but publications from China and USA are also encouraging. The author observed that Indian contributions are mostly in Indian journals. Their publication in international journals would disseminate the findings far and wide.

It is important to organize, make accessible and preserve IK . There are efforts underway by the Government of India by using ICT and involving different stakeholders to make it possible. Libraries are an important partner in this effort. The article “A Brief Description of Libraries in Ancient Civilisations” presents in brief the development of libraries in ancient civilisations. It gives a direction and motivation to present day libraries to preserve the knowledge innovatively.

Sincere acknowledgments are due to all the contributors. Hope the readers find the issue interesting.