Indian Knowledge System (IKS)

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INTRODUCTION

Education has held a pivotal function in India's cultural legacy. India possesses one of the oldest and richest knowledge tradition in the world , diverse discipline such as philosophy, mathematics , astrology , medicine , linguistics, literature and art. The country develop diverse discipline over along period . Ancient Indian universities like Nalanda and Takshila were global , residential centres of learning , attracting international students for a holistics curriculum covering philosophy medicine and astronomy. These institutions emphasized ethical values and practical knowledge which were largely displaced by western models during the colonial era including China , Tibet, and central Asia. These universities featured massive libraries and utilized debates driven pedagogy , such as shastartha . Takshila was known for scholar like Kautilya, Panini and charaka.

Focus on the "bridge" (balanced) NEP 2020 aims to create a dynamic , future –oriented education system rooted in heritage by integrating the Indian knowledge system (IKS) with modern , technological, encouraging students to reconnect with indian's intellectual tradition while thriving in the digital age.

To bridge tradition and technology, NEP 2020 integrates the Indian knowledge system (IKS) , Into the modern curriculum . By blending India's cultural heritage with 21st century digital skills, the policy aims to foster a forward –looking yet rooted education framework.

Understanding the Indian Knowledge System (IKS)

The Indian knowledge system (IKS) is a Vast , ancient , and holistic repository of knowledge , practices, and traditions develop over thousands of years in the Indian subcontinent . it integrate diverse field – including philosophy, science, art, medicine (Ayurveda)and literature derived from foundation texts like the Vedas, Upanishads , and Shastras. IKS combines ,material , spiritual , ecological , and ethical dimensions of life . it emphisizes a deep connection to nature , sustainable living and in many cases a harmony between indivisual , society, and nature. The system covers a wide array of knowledge , including , mathematics , astronomy, physics , architecture, agriculture, and linguistics.

The foundation includes the Vedas (Rigveda ,Samveda, Yajurveda, Atharvaveda), Upanishads ,Puranas ,Ramayana, Mahabharata, and treatises like the Arthashastra(governance) and Ayurveda (medicine).

IKS integrated into contemporary education to address global challenges , promoting sustainability , mental well-being (yoga) and ethical leadership.

Experiential Learning : Ancient Indian education emphasized practical learning through observation , experimental , and direct experiences . Gurukul systems encouraged close integration between teachers and students, promoting critical thinking and moral development.

Sustainability and Harmony with Nature : Indian knowledge tradition promoted ecological balance and sustainable living . concepts such as " vasudhaiva Kutumbakam " and respect for nature are deeply embedded in Indian philosophical thought.

Interdisciplinary knowledge : discipline such as Ayurveda combined medicine , botany and philosophy, while classical architecture incorporated mathematics , aesthetics, and environmental understanding.

Vision of NEP 2020 for Indian Knowledge Systems

NEP 2020 Recognize the important of India's intellectual heritage and proposes several measures to integrate IKS into modern education.

Inclusion in curriculum : the policy encourage universities and school to introduce courses related to Indian knowledge tradition , including classical language philosophy, tradition arts , and indigenous scientific practices.

Research and innovation : NEP 2020 promotes interdisciplinary research on tradition knowledge systems. Institution are encouraged to study ancient texts and reinterpret them using modern scientific methodologies.

Medium of instruction : the policy mandates that, whatever possible, the medium of instruction until at least grade5 will be the home language , mother tongue , local language or regional language .

Digital and Research Initiatives : The "Bharatavani" project is being used for digital archiving and to promote Indian languages. Additional an Indian institute of translation and interpretation (IITI) will be established to make literature available in various Indian languages.

Technological Integration : The All India Council for Technical Education (AICTE) is developing tools to translate engineering course into 11 indian language and technical education is being offered in regional languages.

Indian Sign Language (ISL) Standardized ISL curriculum materials are being developed for students with hearing impairment.

Role Of Technology in Reviving Traditional knowledge

Technology plays a crucial role in making traditional knowledge accessible and relevant in the modern world . Digital platform can facilitate the preservation , dissemination , and reinterpretation of ancient knowledge.

Digital preservation of Ancient Texts: many ancient manuscripts and texts are being digitized to prevent their loss and ensure wider accessibility . digital libraries allow researchers and students to explore classical knowledge resources from anywhere in the world.

Online learning platforms : massive open online course (MOOCS) and online learning platforms provide opportunities for students to study traditional Indian subjects alongside modern disciplines.

Virtual reality and cultural education : virtual reality technologies can recreate historical environments and ancient universities , allowing students to experience traditional learning environments in immersive ways.

Artificial Intelligence and Language Technology : technological tools such as artificial intelligence and natural language processing can help translate and interpret ancient texts written in Sanskrit and other classical language.

Challenges in Integrating IKS with Modern Education

Despite its potential benefits , the integration of IKS into the modern education system faces several challenges.

Lack of Standardized curriculum and content: there is no uniform, structure framework for integrating IKS into current educational systems , causing inconsistent implementation across institutions. Much of the knowledge is non-literary or passed down orally , requiring significant efforts in documentation , validation and translation to make it accessible for modern, academic use.

Teacher training and capacity building : educator frequently lack the specialized training and resources required to teach IKS confidently and accurately. There is a need for professional development programs to help teachers blend traditional knowledge with modern subjects effectively .

Resistance to change and pedagogical rigidity: Academic stakeholders may resist integrating IKS ,fearing it is outdated, unscientific , or incompatible with modern, globalized , and competitive education standards. The rigid nature of current school and universities curricula makes it challenges to fit in new , diverse content.

Resource constraints and material availability: there is a limited availability of quality , scholarly and translated IKS resources , which hinder the development of text-based curricula.

Future prospects

The integration of Indian knowledge system and technology presents several opportunities:

- Promotion of culturally rooted education
- Culturally anchored learning: advancing education framework that are deeply connected to India's heritage.
- Cross-disciplinary Inquiry : Fostering a research environment where ancient insights and modern science intersect.
- Next-gen learning tools : creating pioneering education technologies that bridge the gap between history and the digital age.
- Global Intellectual impact : Enhancing India's role as a major contributor to the world's collective knowledge.

Conclusion

The National Education policy (NEP) 2020 aims to revitalize India's Education by integrating the Indian Knowledge System (IKS) with modern technology, creating a holistic, sustainable , and culturally rooted framework . This approach merges traditional wisdom with contemporary innovation , such as AI and digital platform , to foster creativity ,critical thinking and ethical awareness. By incorporation subjects like indigenous medicine ,

mathematics and philosophy , the policy prepares students to solve modern challenges while preserving cultural heritage.