

GLOBAL COLLABORATION MODELS FROM INDIAN KNOWLEDGE SYSTEM

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ABSTRACT

The purpose of the study was to **GLOBAL COLLABORATION MODELS FROM INDIAN KNOWLEDGE SYSTEM**. Global collaboration models are structured frameworks—including, according to Science Direct, technology transfer, joint, and virtual models—designed to facilitate cross-border cooperation in research, business, and social impact. Key approaches include, per the Global Collaboration Village, digital, immersive, and hybrid environments, as well as, notes Global Trade Magazine, strategic outsourcing and, explains Mission Innovation. The National Education Policy (NEP) 2020 represents a landmark reform in India's education system, introduced to align national learning goals with global standards while reviving the essence of Indian Knowledge Systems (IKS). This policy envisions a holistic, multidisciplinary, and flexible educational framework that nurtures creativity, critical thinking, and ethical values among learners. In comparison with global education models, Global Collaborative Knowledge Systems (GCKS) are derived from Knowledge Management Systems (KMS) and its popularity in last few years is still spreading. KMS occurred as successful idea which is sharing knowledge, gaining interesting, important information and exchange experience, especially in one organization. The success of KMS has encouraged IT specialists to create a new branch, which could give users access to interesting resources without necessity of participation in any organization. The idea was to make people to share knowledge and work in the team. Simplicity and efficiency of those solutions turned out to be a key for success. The aim of GCKS is to share knowledge and information as well as joint creation of knowledge. Such system enables to spread knowledge due to collaborative work of users. Teamwork, instead of traditional rivalry, results in more efficient work and improves new ideas arisen. Presented case study will present results concerning opportunities of development of GCKS for higher education (HE). It will be based on lessons learned and experiences gained during implementing the knowledge sharing portal dedicated to the university. The paper will also present a functionality model of such GCKS as well as opinions of potential users.

Keywords: Global Collaboration Models, Indian Knowledge System

1. Introduction

Global Education Standards

Global Education Standards refer to internationally recognized benchmarks that define the quality, effectiveness, and equity of education systems worldwide. These standards aim to ensure that learners across nations acquire essential knowledge, skills, and values needed for global citizenship and sustainable development. Organizations such as UNESCO, OECD, and the World Bank play a key role in formulating and assessing these standards through frameworks like Education for All (EFA), Sustainable Development Goal 4 (SDG 4), and the Programme for International Student Assessment (PISA). Global education emphasizes holistic learning, critical

thinking, creativity, technological competence, and inclusivity. It promotes access to quality education regardless of gender, geography, or socioeconomic background. Many countries align their national education policies with these standards to enhance international collaboration, student mobility, and employability. Ultimately, global education standards seek to build a knowledge-based, equitable, and interconnected world through lifelong learning and innovation. Global collaboration models are structured frameworks—including, according to Science Direct, technology transfer, joint, and virtual models—designed to facilitate cross-border cooperation in research, business, and social impact. Key approaches include, per the Global Collaboration Village, digital, immersive, and hybrid environments, as well as, notes Global Trade Magazine, strategic outsourcing and, explains Mission Innovation, multilateral, coordinated research calls.

Global Collaboration Models

- **Joint Research & Innovation (R&I) Models:** Involves multiple countries funding separate, coordinated projects on shared topics, such as the Dutch India Water Alliance for Leadership Initiative.
- **Digital & Virtual Collaboration:** Utilizes digital platforms for immersive interaction, exemplified by the Global Collaboration Village, which brings leaders together to address global challenges.
- **MNC-Startup Collaborations:** Multinational Corporations (MNCs) engage with startups through accelerators, venture investments, or ecosystem programs (e.g., meet-ups, hackathons) to foster innovation, says Zinnov.
- **Technology Transfer Model:** A seven-step process involving identifying improvement areas, developing solutions, and validating, as outlined by Science Direct.
- **Social Impact/Training of Trainers (ToT) Model:** Bridge for Billions suggests this model for co-designing entrepreneurship support programs with local organizations.
- **Outsourcing & Strategic Partnerships:** According to Global Trade Magazine, this includes managing international cargo and cross-border teams.

Common Types of Collaboration

Some of the most common types of collaboration, listed in level of formality from low to high and with definitions, are as follows:

- **Networks:** People connected by relationships, which can take on a variety of forms, both formal and informal.
 - **Example:** Barr Fellows Program
- **Coalitions:** Organizations whose members commit to an agreed-on purpose and shared decision making to influence an external institution or target, while each member organization maintains its own autonomy.
 - **Example:** Conservation Alliance for Seafood Solutions

- **Movements:** Collective action with a common frame and long-term vision for social change, characterized by grassroots mobilization that works to address a power imbalance.
Example: Caring Across Generations
- **Strategic Alliances:** Partnership among organizations working in pursuit of a common goal while maintaining organizational independence. This could mean aligning programs or administrative functions or adopting complementary strategies.
Example: Arts + Response
- **Strategic Co-Funding:** Partnership among organizations that work in pursuit of a common goal. This could mean aligning programs or administrative functions or adopting complementary strategies.
Example: Home for Good
- **Public-Private Partnerships:** Partnerships formed between government and private sector organizations to deliver specific services or benefits.
Example: Cambridge Energy Alliance
- **Collective Impact Initiatives:** Long-term commitments by a group of important actors from different sectors to a common agenda for solving a specific social problem.
Example: Shape Up Somerville

Indian Knowledge Systems (IKS)

Indian Knowledge Systems (IKS) represent the vast, diverse, and ancient intellectual traditions of India that encompass science, philosophy, art, literature, medicine, mathematics, governance, and spirituality. Rooted in centuries of scholarly pursuit and cultural evolution, IKS emphasizes a holistic understanding of life, integrating knowledge with ethics, sustainability, and well-being. Ancient universities such as Nalanda, Takshashila, and Vikramshila were global centers of learning that embodied these principles. IKS includes profound contributions such as Ayurveda in medicine, Yoga in physical and mental discipline, Vastu Shastra in architecture, Jyotish Shastra in astronomy, and Chanakya Niti in political thought. Fields like mathematics (zero, decimal system) and metallurgy also reflect India's scientific advancements. The National Education Policy (NEP) 2020 recognizes the importance of IKS in creating a balanced education system that blends traditional wisdom with modern scientific inquiry. By integrating IKS into contemporary curricula, students can develop a deeper understanding of Indian heritage, environmental ethics, and sustainable living practices. This approach not only preserves indigenous knowledge but also

promotes innovation grounded in cultural identity. Thus, IKS serves as a bridge between India's ancient intellectual legacy and modern global education, nurturing both wisdom and progress.

Indian Knowledge Systems: An Overview

The Indian Knowledge Systems have developed over thousands of years through philosophical questioning, observation, and social change. These systems are found in classical texts like the Vedas, Upanishads, and Arthashastra, as well as in oral traditions and community practices. Key components include:

- Ayurveda: A holistic health system that focuses on balance within the body and harmony with nature.
- It is based on ideas of ecological interdependence and sustainable resource use.
- Vedic Environmental Philosophy: Vedic literature shows respect for Earth (referred to as 'Prithvi Mata').
- It encourages minimal consumption, reducing waste, and supporting biodiversity through views of cosmic ecology.
- Agricultural and Water Management Practices: Traditional irrigation methods, such as rainwater harvesting, and soil conservation techniques reflect eco-friendly farming that fits with local ecosystems.
- Ethical Environmentalism: Indian philosophies promote 'Ahimsa' (non-violence) towards all living beings, highlighting moral responsibilities for caring for the environment.
- These complex systems express a worldview that sees humans as part of a sacred universal order rather than rulers of nature, encouraging sustainable behaviour across various social and economic aspects.

Multidisciplinary Learning and Holistic Education

Multidisciplinary learning and holistic education are core principles of the National Education Policy (NEP) 2020, aiming to transform the Indian education system into one that fosters creativity, critical thinking, and lifelong learning. Multidisciplinary learning allows students to choose subjects across streams, such as science, arts, commerce, humanities, and vocational courses, breaking the rigid boundaries of traditional education. This flexibility encourages interdisciplinary knowledge, problem-solving abilities, and adaptability, aligning India's education system with global standards observed in liberal education models of the USA, Europe, and other leading nations. Holistic education goes beyond academic learning to focus on the overall development of learners, including emotional, social, ethical, physical, and cognitive

growth. NEP 2020 emphasizes experiential learning, vocational training, and value-based education; ensuring students develop practical skills, social responsibility, and cultural awareness. Integrating Indian Knowledge Systems (IKS), such as Yoga, arts, philosophy, and environmental ethics, enriches holistic learning by connecting students with India's intellectual and cultural heritage. Together, multidisciplinary and holistic approaches create well-rounded individuals capable of addressing complex real-world challenges, contributing to innovation, and participating meaningfully in society. They also bridge global best practices with India's traditional knowledge, making education inclusive, future-ready, and culturally rooted.

Global Competitiveness and Educational Reforms

The National Education Policy (NEP) 2020 aims to enhance global competitiveness by aligning India's education system with international standards and preparing students for the challenges of the 21st century. Emphasizing critical thinking, creativity, digital literacy, and multidisciplinary learning, NEP encourages learners to acquire skills that meet global workforce demands. Initiatives like the Academic Bank of Credits, flexible curricula, online education platforms, and international collaborations foster mobility, innovation, and lifelong learning. The policy represents a significant educational reform, restructuring school and higher education systems to be more inclusive, flexible, and research-driven. By integrating Indian Knowledge Systems (IKS) alongside modern sciences, NEP ensures students gain a unique advantage, combining traditional wisdom with contemporary knowledge. These reforms aim to produce globally competent citizens who can contribute to international innovation while retaining cultural identity, making India a knowledge-driven economy and a hub for sustainable development and global intellectual leadership.

Sustainable Development and Value-Based Education:

The National Education Policy (NEP) 2020 emphasizes sustainable development and value-based education as central pillars for shaping responsible and socially conscious citizens. Sustainable development in education focuses on equipping learners with the knowledge, skills, and attitudes necessary to address global challenges such as climate change, resource management, social inequality, and environmental degradation. NEP 2020 integrates sustainability concepts through experiential learning, project-based activities, and interdisciplinary approaches, encouraging students to develop practical solutions while understanding ecological balance and community well-being. Value-based education under NEP 2020 emphasizes ethical reasoning, empathy,

social responsibility, cultural awareness, and moral integrity. By incorporating Indian Knowledge Systems (IKS), including teachings from philosophy, Yoga, Ayurveda, and classical literature, the policy nurtures respect for cultural heritage and human values alongside modern scientific learning. This dual focus ensures education is not merely skill-oriented but holistic, transformative, and rooted in ethics. Combining sustainable development with value-based education enables learners to become globally aware, culturally grounded, and socially responsible individuals. By fostering environmental stewardship, ethical conduct, and civic engagement, NEP 2020 prepares students to contribute meaningfully to sustainable societies while preserving India's intellectual and moral legacy.

India as a Vishwaguru

The National Education Policy (NEP) 2020 envisions India as a "Vishwaguru" a global leader in knowledge, education, and innovation. By reforming the education system to be holistic, multidisciplinary, and globally competitive, NEP seeks to position India as a center of learning that combines modern scientific advancements with India's rich intellectual heritage. The policy emphasizes research, innovation, digital learning, and international collaborations, enabling Indian students and institutions to contribute meaningfully to global knowledge creation. A distinctive aspect of this vision is the integration of Indian Knowledge Systems (IKS), including classical arts, literature, philosophy, Yoga, Ayurveda, and sustainable practices. By promoting indigenous wisdom alongside contemporary education, NEP strengthens India's cultural identity and showcases its civilizational contributions on the world stage. Through these initiatives, India aims to produce globally competent, ethically grounded, and culturally rooted citizens, fostering innovation, sustainable development, and leadership. NEP 2020 thus lays the foundation for India to reclaim its historical status as a Vishwaguru in education and knowledge.

Conclusions

Global collaboration models are structured frameworks—including, according to Science Direct, technology transfer, joint, and virtual models—designed to facilitate cross-border cooperation in research, business, and social impact. Key approaches include, per the Global Collaboration Village, digital, immersive, and hybrid environments, as well as, notes Global Trade Magazine, strategic outsourcing and, explains Mission Innovation. The National Education Policy (NEP) 2020 represents a transformative blueprint for India's education system, aiming to align it with global standards while preserving the country's unique cultural and intellectual heritage. By emphasizing holistic, multidisciplinary, and skill-oriented learning, NEP fosters the development

of learners who are not only academically competent but also ethically grounded, socially responsible, and culturally aware. The policy's integration of Indian Knowledge Systems (IKS)-including Yoga, Ayurveda, classical arts, literature, philosophy, and sustainable practices-ensures that students remain connected to India's civilizational legacy while engaging with contemporary knowledge and technology. NEP 2020's focus on foundational literacy, global citizenship, digital learning, curriculum flexibility, and research innovation aligns India with international benchmarks, promoting global competitiveness and facilitating knowledge exchange across borders. At the same time, initiatives like the Academic Bank of Credits, vocational education, and experiential learning empower students with practical skills, adaptability, and lifelong learning capabilities.

By combining global best practices with indigenous wisdom, NEP 2020 addresses both the demands of a knowledge-driven global economy and the preservation of India's intellectual identity. It envisions the creation of well-rounded individuals capable of innovation, leadership, and sustainable development, positioning India as a Vishwaguru in education and knowledge. Overall, NEP 2020 offers a comprehensive, inclusive, and forward-looking framework that harmonizes modern education with India's rich heritage, laying the foundation for a globally competent and culturally rooted generation.

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