

The Case for Open Education Resources Distance and Distributed Education to Support the Growing Knowledge Economy in India

M. S. Vijay Kumar

Massachusetts Institute of Technology, USA

INTRODUCTION

In the new developing economies interest in distance education and in particular, in online distance education, is increasing. (Daniels, J, West P. 2006). In India, this trend is evident in the proliferation of foreign and domestic institutions, public and private, becoming the new “providers” of online digitally delivered education. This proliferation should not be surprising given that India is a country rushing to develop educated human resources to meet the needs of a rapidly growing economy in every sector. Broad access to high quality education is a high priority to meet the needs of a knowledge-driven society.

A World Bank report (2005), “India and the Knowledge Economy: Leveraging Strengths and Opportunities,” points out that India is beginning to have a significant global impact on science, engineering, information technology (IT), and research and development (R&D) through its many highly educated and vocationally qualified people. However, as the report also highlights, to create a sustained cadre of knowledge workers, “India needs to make its education system more demand-driven to meet the emerging needs of the economy and raise the quality of all higher education institutions, not just a few world-class ones, such as the Indian Institutes of Technology”. Equally important, as many of India’s leaders have pointed out, the larger goal to pursue is that of global leadership through a world-class knowledge enterprise.

About 10% of the relevant age group in India is currently enrolled in higher education, whereas in developed countries corresponding figures are around 30% to 50% of the relevant population. The engineering education sector, alone is well illustrative of the unmet demand that can be fulfilled by online and distance

education in India. Even to maintain the current levels a new major university will be needed every week

The transformation of India into a knowledge society is going to depend, to a large extent, on the capacity to provide such knowledge citizens and knowledge workers. Yet, the needs for continuous education that are essential for skill upgrading and for equipping people to be not just better as workers but also as citizens are largely unmet.

In December 2005, India’s National Knowledge Commission (NKC)¹ decided to explore opportunities in the areas of e-learning and distance education, in order to understand the implications for extending access and enhancing quality for higher education in India. Several discussions were held with a diverse group of stakeholders comprising key initiatives, institutions and individuals representing government, industry, academia and civil society, in India and elsewhere. This chapter draws upon the recommendations of the commission to “describe a strategy for addressing the escalating needs for quality education in the Indian context that leverages open educational resources.” The approaches described for the adoption and diffusion of open educational resources should be extensible to other contexts.

BACKGROUND

A key goal for open and distance education is to extend higher education to non-traditional learners, specifically those who are at a disadvantage in the conventional system with respect to age, gender, geography, social and economic background. Adopting an open, flexible and relatively inexpensive approach is one strategy for meeting this goal. In many cases this type of open

and flexible program could be the only university or higher education that some people may get. However the current formal system simply does not have the physical infrastructure or the human resources to meet this demand vector in terms of scale or quality.

In India, several initiatives, notably the Indira Gandhi National Open University (IGNOU) and EDUSA have been launched in recent years, but their impact is stymied due to many factors. These factors include a dearth of quality educational content and applications, lack of a robust infrastructure for delivery, a lack of appropriate organizational arrangements as well as inadequate educational tools and practices.

Distance education is also largely perceived as second-class education, for school leavers alone but not for mainstream education. Distance education is seen essentially seen as a delivery mode and not a whole educational process/platform. Consequently many of the inadequacies of traditional educational practices — rote dependency, no interactivity, lack of experiential learning opportunities — are merely carried over to this mode of delivery.

Overall the potential for distance education, particularly online learning, is under realized.

OPEN EDUCATIONAL RESOURCES

A useful description of Open Educational Resources (OER) from the Hewlett Foundation website is as follows: OER are teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use or re-purposing by others. OERs include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge.

The increasing capabilities of the Internet coupled with Open Educational Resources offer unprecedented opportunity to significantly widen access to quality educational resources for different sectors. Open educational resources present the potential to bring globally created educational resources to serve the knowledge needs of diverse communities; they offer the possibility of bringing interactive educational experiences to learners that have hitherto not been the norm.

As the NKC Report articulates, “Our success in the knowledge economy hinges to a large extent on

upgrading the quality of, and enhancing the access to, education. One of the most effective ways of achieving this would be to stimulate the development and dissemination of quality Open Access (OA) materials and Open Educational Resources (OER) through broadband Internet connectivity.” As a part of the NKC consultative process, a working group of experts, including distinguished members from academia, government, private sector and users was constituted to suggest necessary measures that would facilitate access and quality improvement in Higher Education through Open Educational Resources.

This group generated the series of steps outlined below. These steps are viewed as elements of a systemic approach to deliver quality and increase access through contemporary online distance education that leverages network enabled open educational resources.

1. Launch a national e-content and curriculum initiative.

This *e-content* and *curriculum* initiative will focus on rapid production and acquisition of content with initial focus on technical education, science and technology, medicine, including public health. This initiative would include the following four strategies:

A. **India leverages the global open educational resources movement to take advantage of content initiatives.** Sustainable development of relevant, quality content is a difficult and expensive proposition, given the diverse needs of various sectors in a growing knowledge economy. Ensuring quality is a challenge in itself. Emerging international and national open content initiatives such as the global OpenCourseWare Consortium, MIT’s Open Courseware (OCW), MERLOT, CURRIKI from the Global Educational Learning Community initiative and India’s National Program on Technology Enhanced Learning NPTEL are offering quality educational content as open resources. India can leverage these materials, as they are readily available for adoption and adaptation and as models for further indigenous content production.

It is notable that the NKC has recommended that at a policy level, all research articles published by Indian authors receiving substantial government or public funding must be made available

6 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:
www.igi-global.com/chapter/case-open-education-resources-distance/11759

Related Content

Anonymity-Featured Group Support Systems and Creativity

Esther E. Klein (2005). *Encyclopedia of Distance Learning* (pp. 97-103).

www.irma-international.org/chapter/anonymity-featured-group-support-systems/12093

Exploring the Role of Ed-Tech Start-Ups and Digital Divide in Online Learning During the Coronavirus Pandemic in the Indian Education System

Anand Jha and Nisha Jha (2022). *Handbook of Research on Adapting Remote Learning Practices for Early Childhood and Elementary School Classrooms* (pp. 222-248).

www.irma-international.org/chapter/exploring-the-role-of-ed-tech-start-ups-and-digital-divide-in-online-learning-during-the-coronavirus-pandemic-in-the-indian-education-system/297462

Web 2.0 Technologies in Times of Pandemic COVID-19: Pedagogical Experience

Yulia Gavronskaya, Dmitry Gura, Albina Minakhmetova and Olesya Dudnik (2024). *International Journal of Distance Education Technologies* (pp. 1-18).

www.irma-international.org/article/web-20-technologies-in-times-of-pandemic-covid-19/337963

Programmed Instruction, Programmed Branching, and Learning Outcomes

Robert S. Owen and Bosede Aworuwa (2008). *Online and Distance Learning: Concepts, Methodologies, Tools, and Applications* (pp. 2593-2598).

www.irma-international.org/chapter/programmed-instruction-programmed-branching-learning/27571

A Bibliometric Analysis of the Use of the Metaverse in Education Over Three Decades

Wentao Chen, Jinyu Zhang and Zhonggen Yu (2023). *International Journal of Information and Communication Technology Education* (pp. 1-16).

www.irma-international.org/article/a-bibliometric-analysis-of-the-use-of-the-metaverse-in-education-over-three-decades/322101