

# Contextualizing Learning for Rural Community using Library-in-a-Box: Experience from Penan Community

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**Abstract:** *Online Learning Platforms (OLP) have incredible potential to achieve the vision stated in the Malaysia Education Blueprint (2015-2025) - to become a nation of lifelong learners and to embrace globalized online learning. But there exists technological and social challenges in replicating the connectivity model of OLP to achieve the much extended and inclusive vision of connecting the rural population to the knowledge ecosystem. In response, the Institute of Social Informatics and Technological Innovations (ISITI) has developed a low-cost offline learning tool 'Library-in-a-Box'. This research investigates the suitability of offline learning platform/tool to meet the knowledge demands of remote and indigenous Penan communities from the Borneo Malaysia. Based on community based participatory action research, we conducted learning session and interview with the community. The findings revealed enablers and inhibitors – both anticipated when contextualizing offline learning to rural community. The enablers of offline learning are delivery of value-added content, affordability and connectivity, fostering communal values, proper utilization of local resources, early childhood development and empowerment of local capacities especially teachers. While the inhibitors are dispute over control and ownership of content/tool, quality issues of content, detrimental effects on health and social well-being, threat to culture and undervaluing teacher's role. This research reaffirmed technology as a partial solution and suggested offline learning modus operandi to reflect the socio-cultural context.*

**Index Terms:** *Digital Divide, Library-in-a-Box, Offline Learning, Penan Inhabitants, Rural communities.*

## I. INTRODUCTION

Current pedagogical reform marks the evolution of a knowledge-based society made possible by the rapid technological progresses. In present day, this educational reform resonates with the famous quote “where the knowledge is free, where the world has not been broken up into fragments by narrow domestic walls” by Rabindranath Tagore. Online Learning Platform such as MOOC (Massive

Open Online Course) has a huge share in this radical pedagogical reform with three driving principles: Massiveness, Openness and Connectivity [1]. First introduced in 2006, MOOC in its short span showcased tremendous potential by reaching millions of learners world-wide. Daphne Koller, a co-founder of Coursera shares that the first ever MOOC course on Machine Learning by Stanford had 100,000 students registered for the course which otherwise would have only 400 enrolments per semester [2]. To put that into perspective, a lecturer would require 250 years to teach the same course in a conventional setup. The transition from ‘under one classroom’ setting to ‘classroom with no physical walls (boundaries)’ has also crumbled the knowledge monopoly by providing open access to learning materials from top ranking universities provided that connectivity via the Internet is secured [3].

To embrace such pedagogical reforms in learning, the Ministry of Higher Education (MoHE) in Malaysia has strongly advocated the use of technology to improve quality and widen access to education, as one of its critical agenda projects, which came to fruition with the launching of Malaysia MOOC in 2014 [4-5]. Further Malaysia Education Blueprint 2015-2025, projects a roadmap for educational reform with aspirations to become a nation of lifelong learners (Shift 3) and embrace globalised online learning (Shift 9) [6]. To achieve these shifts, MOOC platform is seen as an agent of change [7], but there are significant challenges. The connectivity requirement for MOOC is a major disadvantage in Malaysia, especially to address the knowledge demands of the rural communities. Though the telecentre project in Malaysia is seen as a beacon of hope in bridging the digital divide and to provide connectivity to rural areas, the impact is not fully and equally achieved in all regions – primarily due to lack of value added benefit to the community [8-9]. Besides lack of basic ICT infrastructures, poor/non-existent broadband connections and digital incompetency – geographic remoteness, cultural differences and isolation further compound existing challenges in Malaysia. For instance, Long Lamai, a Penan village in Sarawak of Malaysian Borneo is geographically remote and inaccessible by road. Travelling to the settlement comprises of long eight hours drive on rough logging from the nearest town Miri and an hour of hiking through dense rainforest.

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